

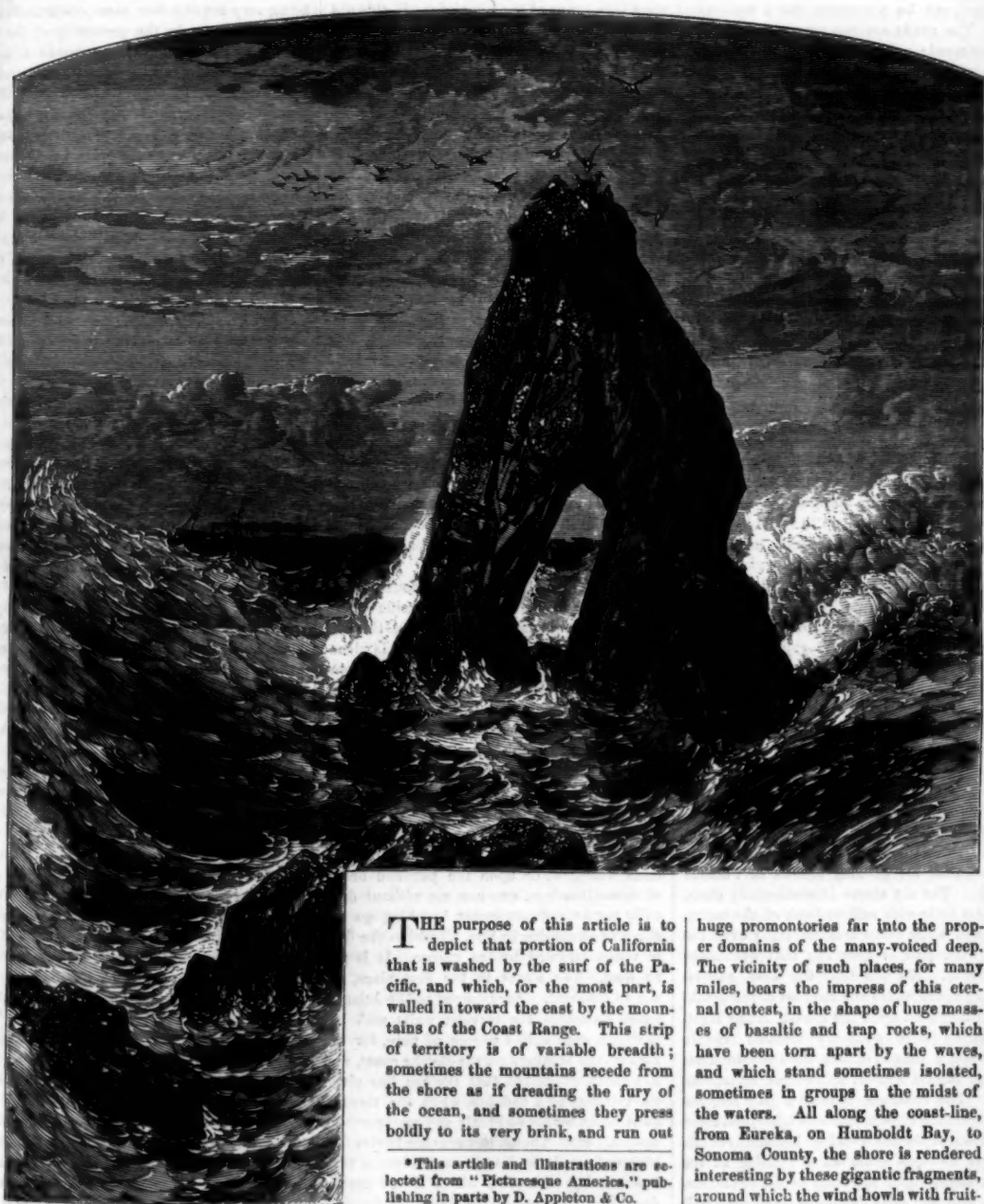
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THE COAST OF CALIFORNIA.*



THE purpose of this article is to depict that portion of California that is washed by the surf of the Pacific, and which, for the most part, is walled in toward the east by the mountains of the Coast Range. This strip of territory is of variable breadth; sometimes the mountains recede from the shore as if dreading the fury of the ocean, and sometimes they press boldly to its very brink, and run out

huge promontories far into the proper domains of the many-voiced deep. The vicinity of such places, for many miles, bears the impress of this eternal contest, in the shape of huge masses of basaltic and trap rocks, which have been torn apart by the waves, and which stand sometimes isolated, sometimes in groups in the midst of the waters. All along the coast-line, from Eureka, on Humboldt Bay, to Sonoma County, the shore is rendered interesting by these gigantic fragments, around which the wind howls with fruit-

*This article and illustrations are selected from "Picturesque America," publishing in parts by D. Appleton & Co.

less fury, and where the wild birds of the ocean congregate in myriads, deafening the tourist with their tumultuous cries.

The inhabitants of the coast are, for the most part, Americans, but there is a lingering remnant of the Spaniard, and a trace of the Russian, dating back from the far-away times when the Russian Fur Company was established here, and was a power in the land. The means of traveling are twofold—the mud-wagon in summer and the stage in winter—the stage being of that ponderous variety known as the Concord. A pleasanter way than either is to go on horseback; and the mustangs, which, though small in size, are excellent, can be purchased for a moderate sum. The roads are not very good, it must be confessed; and there are bad bits, especially where the track winds round the base of a mountain. But they are good enough to the contented mind, and stage communication has never been interrupted. The tourist will find little scenery of sufficient grandeur to interest him until he approaches Cape Mendocino. Here the mountains, which previously were low down upon the line of the horizon, come right up to the sea. After crossing the Eel River, a stream of considerable magnitude, the road winds along the skirts of Mount Pierce, a huge mountain, which terminates a long range of high hills, running parallel to and not far from the sea-coast. The sides of Mount Pierce are positively covered with the famous red-wood; and the eye ranges over miles and miles of this magnificent tree without detecting any other kind. Some of these are no less than three hundred feet high and twelve feet in diameter, and the magnificence of these mountain-forests can well be imagined. In the early morning, as the mud-wagon painfully climbs up the foot-hills, the eye delightfully watches the mist slowly departing from the tall tops of these giants. A thick veil lies upon the cliffs and the sea, also unilluminated by the sun. To the left, however, slanting arrows of red light come up beside the crags and fall upon the columnar trunks of the red-woods. The deep green leaves seem gilded at the edges, and the bark of cinnamon-color glows under the red rays. Above, half-way up the trees, there is a point where the early sunlight and the mist are at strife. At this place, the mist wreathes and circles about under the influence of the sun, and this movement communicates itself slowly, very slowly, to the deep bank of mist above, where the grays are pure, and have no contact with the glowing arrows of Phœbus Apollo. The sky above is wonderfully clear, tinged a little with saffron back of the mountain, and a few stars tremble lazily over the deep, dark pall of gray fog that overhangs the ocean. We can hear the slow, solemn pulsing of the waves and the roar of the breakers as they beat upon the rocks. A few light, wandering *cirri* suddenly become visible overhead, a tongue of fire licks the topmost crag of Mount Pierce, and warns its barrenness. The cloudlets become a pale red, the mist upon the trees creeps up higher, and more and more of the dense foliage becomes visible. In five minutes, while we are gazing at the light moving upon the crags of the mountain-side, and the mist departing from the red-

woods upon its broad flanks, all, all has become clear; and seaward the eyes are charmed with such a bit of rugged grandeur as the artist has depicted. The cliffs are not high, but along them are the fragments that the sea in its fury has overwhelmed after centuries of never-ending warfare. In a kind of inlet, standing like the monument of some great one in a market-place, is an isolated rock of fantastic shape. It is of basalt, seamed and scarred very strangely. The sea has worn a passage through the base, through which the waters splash and rage unceasingly. The height of the arch thus made gives us an idea of the fury of the storms that have beat upon this tower of the sea-birds. If this did not exist, we might infer it from the difference of color in the rock. Above, the tones are pure gray; but below, where the tempest reaches, of a dark brown. The crest is of a dazzling white, from the guano of the wild-fowl that inhabit there, and breed, and bring up their young. In the early morning they are silent until the mist has lifted; then one starts up, and he goes circling round the cliff, pouring out harsh and discordant cries, then another joins in, and another, until all the adult birds are on the wing, and the rock is left in possession of the young ones, that scream for food as long as they can see a single bird in the air. In a few minutes, of all the thousands of birds that were circling about, not half a dozen are in sight. All have gone a-fishing in such places as they are acquainted with; and, if one might linger, doubtless he would see the birds return one by one with food for their young ones. Among the inhabitants of such rocks the pelican, the cormorant, and the large kind of sea-gull, are the most conspicuous, but occasionally there is a fowl called the murre, whose eggs are considered a great delicacy, and are sold by hundreds of thousands.

Nothing can be more tumultuous or less pacific than the waters of the Pacific Ocean along the Mendocino coast. Where there is a sandy beach, which is not often, it is pleasant to watch the incoming waves, and to compare them with those of the Atlantic. We at once perceive that there is a considerable difference. In the Atlantic the surf is seldom more than six feet high, and the serried line of waters that comes dashing onward is rarely more than two hundred yards long. In fact, gazing at the sea that breaks upon the Long-Branch shore, or upon the sands of Cape May, or upon the western side of Martha's Vineyard, or upon the petrified beach of Santo Domingo, one can see without difficulty ten or a dozen waves breaking on the shore or advancing in line, all within the field of vision afforded by one glance. It is not so here. The waves, in the first place, are not so frequent. Accustomed to the Atlantic quick pulsation, the traveler waits with impatience, even with a degree of pain, for the roar of the breakers on the Pacific coast, and has about concluded that the sea has given the thing up as a bad job, when the tremendous boom bursts suddenly and unexpectedly upon his ear. Then, the waves are twelve feet high and a mile in length, and advance with a solemnity of motion which words cannot describe. The curves described by the fall-

ing crests of such waves are infinitely finer than any thing which the Atlantic presents; and the boiling fury with which they crash upon the beach and churn the sands is, at first sight, appalling. Around such isolated rocks as those presented by the artist they rage and raven, like the dogs which the poets fabled around Scylla. All along the Mendocino coast they have worn the cliffs into strange and wondrous forms, beating out caverns where the lower part is conglomerate rock, and series of arched cellars, into which tuns of sea-weed and *débris* are thrown. The basalt, which is the leading character of the crust, is not uniform in texture, some parts being very much softer than others. Whenever this occurs in the proximity of the waters, they have invariably scooped out the soft rock, making all kinds of mystic arches, siren rings, and gate-ways of Poseidon. This is not infrequent, and occasionally happens in spots accessible to the human foot, sometimes even in close neighborhood to the stage-road. The surface is covered with a rank, coarse grass, which even mules disdain, and which the wandering goat will not even look at. Sometimes a cactus will bloom along the cliffs, and there is a species of thistle, with very handsome bluish-green leaves and a large yellow flower.

The mountains press closer and closer to the sea until we arrive at the mouth of Russian River, south of which the Russian Fur Company had its station. This is not a very large stream, and is only navigable for about twelve miles from its mouth; but there are many saw-mills on its banks, and Bodega, the nearest town, does quite a lumber-business. The entrance to the mouth of Russian River is quite picturesque. There are numbers of schooners and sloops laden with red-wood, some going north, to Portland—others south, to San Francisco, Monterey, and as far down as the Isthmus. The northern side of the little bay is very bold. The promontory is of the most striking character, coming down from the mountain-peak in a succession of grand, sweeping terraces, some of the descents being so scarped as to suggest the idea of Titanic fortifications. On the flanks there is the inevitable red-wood forest, which, in places, ascends almost to the summit. In other places the mountain is bare and rugged, showing huge masses of grayish granite verging on purple. The cliffs at the extremity of the promontory have been torn and rent by some dreadful convulsion until they are almost separated from the main-land. And their jagged summit bears a quaint resemblance to the spires and minarets of a cathedral. At the entrance to the mouth of the river are huge detached cliffs of basalt, which form two groups, called by the boatmen the Brothers and Sisters, though the same name is applied to other cliffs down the coast. The slopes near the sea are denuded of timber, and, being covered with a short, sweet grass, afford excellent pasture to a fine breed of sheep, for which this part of the country is noted. On the southern side of the mouth of Russian River there are broad sweeps of fine pasturage, from which, however, the basalt crops up occasionally in isolated peaks, like the castles of the robber-knights who

lived along the Scottish borders in the olden time. They are inaccessible, which the birds seem to comprehend, for they inhabit here, and breed with as much freedom as on the sea-girt cliffs that stud the shore. This peculiar formation is more than three hundred feet high, and affords a pleasant shadow in the hot noons for the flocks of sheep and their shepherds. It is nearly square, and the sides are so steep that no one has ever succeeded in climbing, though many have tried. Beyond the sweeps of pasturage the hills come down again and renew their struggle with the sea. It seems as if there had been a mutual understanding and a truce to allow the beautiful young river to join herself to the sea, and the plains ever her attendants. Then the truce is broken, and the old warfare recommences, for the mountains come down with greater determination than ever, and, at Bodega Head, rush far into the sea, as if in contumely and derision of the sea-born powers.

The town of Bodega was formerly the Russian station, and in the vicinity there are still the frail and fading remains of a stockade and fort, with an old church, built in 1787. Many of the names in Bodega are Russian, and one sees on the signs *Ivanivitch, carpintero*; *Vassilivitch, panadero*—Spanish being the language of the place. There is an old Spanish hotel, built of adobe, in the regular Spanish style, with a garden attached. This in former days used to be filled with flowers, but is now occupied by vines. The native wine is called white Sonoma. The ground is very fertile, and there is excellent grazing all about. Pears and apples of the finest quality are grown in such abundance that two-thirds fall on the ground, and the pigs are driven in to feed on them. Besides the white Sonoma there is a black grape, which is of excellent quality as an eating-grape. Vegetables also grow superbly, and corn is produced as excellent as in Illinois or Ohio. After the toilsome journeying through the mountains, which is sufficiently fatiguing, whether by wagon or on horseback, a few days' halt in Bodega comes very agreeably. There is much to be seen also. Many of the houses are of the old Spanish construction, with, perhaps, romantic histories. The old stockade-fort, Ross, situated on a plateau near the cliffs, is well worthy of examination, and the old Greek Church, with its miniature spires of red-wood, and their gilded tops, is a curious relic of a past so absolutely gone that very few are aware now that it ever existed. From Bodega a capital, fast-going stage runs to Petaluma, which is only forty-six miles from San Francisco. It is situated upon Petaluma Creek, at the head of San Pablo Bay, and steamers run every day from it to San Francisco. But, for the tourist who wishes to see the coast, this route is inadmissible, since it is a diversion inland, and a turning one's back upon the scenery and the difficulties of the shore-line. A stage will take him to the town of Two Rocks, which derives its name from the configuration of the coast. The height is about two hundred and sixty feet, but the mass is enormous. Detached rocks, like needles worn to a point by the eternal blustering of the winds and waves,

surround it on every side like small diamonds around a Koh-i-noor, and on the flanks there are broad, flat masses, which are the favorite resorts of seals. Here the soft-eyed wretches, so persecuted for their exquisite skins, sun themselves in comparative security; for, though not protected by law, as at San Francisco, yet the influence of that law is felt here in Two Rocks, and there is a moral feeling against disturbing their repose. The innumerable birds that make their nests upon the broad, flat summits of these rocks are not so kindly treated, being robbed at regular intervals by an egg company formed for that purpose. Wild and precipitous as these rocks appear, they can be scaled without difficulty, and the time will inevitably come when the birds will learn to avoid the place, and the rocks will lose their chief attraction—their chief attraction, it must be understood, for the multitude.

Persisting in our resolution not to be diverted from the coast, we must, now that we have arrived in Marin County, take a schooner from the pretty little harbor of Oloma, only fifteen miles from San Francisco, and enter the famous bay in this way rather than yield to the seduction of stages, railways, and internal navigation. As we approach the entrance, the hills on the left loom up through the deep haze like giants, and are, indeed, more than two thousand feet high. To the right, they are by no means so lofty. As the mist clears off, they are bare and sandy, and are not very picturesque, though on the left the peak of Tamulpais shows grandly. The view opens, and the splendid straits called the Golden Gate appear. Through them we can see the island-rock of Alcatraz, with its fortifications gleaming in the distance. The enormous mass of Tamulpais, which showed at first boldly in our front, seems still behind Alcatraz. Between the last and the shore is Angeles Island, very high, and covered with rich green vegetation. Goat Island, with its fort, is on the left of Alcatraz. To our right hand is Fort Point, where the United States flag floats, and, a little beyond it, the old Presidio. Beyond is the city—the glorious city that leaped full-born into existence. It rises up with numberless towers and spires, and great warehouses, as the schooner, with her sails filled to bursting with the fresh sea-breeze, staggers on. Little craft and big craft, steamers from the ocean, tugs, and every variety of floating thing, are spread upon the gleaming waters, whose green waves dash into white foam upon the three islands ahead. Beyond the city, one can catch momentary glimpses of shipping, which grow fuller and fuller until we get abreast of Alcatraz, when all the glory of the bay bursts upon the sight. Far on the other side are Benicia and the glittering waves of Carquinez Straits. Beyond we catch a glimpse of the peak of Monte Diablo, at the base of which seems to crouch the town of Oakland, though it is really a very large place. But the air is so pure, so serene, that one can see the scarred ravines on the sides very far, and we almost think we can see Stockton. It is not from the bay itself, however, that the finest view can be obtained. From the schooner's deck one can indeed obtain glimpses, but the whole can

only be seen from the shore. To survey all the beauty of the Golden Gate it is necessary to climb Telegraph Hill, which is to the westward of the city. From that elevated position, with roofs and buildings lying peacefully below one's feet, and stretching far out to one's right hand, the prospect of the Golden Gate is, indeed, exceedingly beautiful. The portals of the "Gate" seem but a mile apart, and, through the mist that hangs upon the farther side, the giant Tamulpais looms with tremendous force, like some Titan sentinel guarding the approach of a new Hesperides.

To the people of San Francisco there is no pleasure equal to the drive through the sand-hills, over a fine, hard road, to the Cliff House. This is emphatically the most picturesque part of San Francisco, both in its surroundings and in its sea-cliffs, where the sea-lions bark and whine and roar, with none to make them afraid. The distance from the city is about five miles; and there is little to be seen on either side of natural beauty, though there are parks and cemeteries and gardens of extreme loveliness. Nature has furnished only sand-hills, which seem to be half firm, like sandstone, half crumbling. But the Cliff House is built, as its name imports, upon frowning basalt; and the road that winds from it to the ocean hence has been cut through solid rock. The bluff of the hotel is about one hundred and thirty feet in perpendicular height, of a gray color, verging into the deepest brown. Detached bowlders lie at its base, and are tormented by the fierce rollers. Beyond, at some distance, are the cliffs where the sea-lions congregate. Truly, their bark is worse than their bite. They occasionally get up a little altercation, and roar tremendously; but they are a placable people, and their contests are not alarming. Strangers sit on the esplanade in front of the Cliff House, and watch them by the hour through their opera-glasses.

From the Cliff House, a road has been cut through the basalt for some distance, and is succeeded by a fine, sandy strand. About five miles from the first-named hotel there is another, named the Ocean House, which, if it has no attractions in the way of sea-lions, has much to recommend it in the scenery by which it is surrounded. Here, indeed, is one of the stretches of ground where one can see the Pacific Ocean roll in with interrupted grandeur. Nothing can be conceived more majestic than this sight, especially in that part of the strand which gives a fair view of Point San Pedro. The length of the wave-walls is fully a mile, and the height of the rollers twelve feet. The enormous mass of water comes onward with a solemn grandeur which appalls. There is no hesitation, no tremor, along the whole line; and it looks like the charge of an army of cavaliers galloping with perfect regularity and even line upon the foe. Solemnly it advances, with the crest just flecked with foam; and every thing seems hushed, as if in expectation of the onset. Suddenly, as it nears the shore, there is a trembling all along the mile of sea, and the crests begin to curve slightly over. The line halts; the crests curve more and more; and suddenly the immense length pours down like a cataract upon the shore, pounding the



BASALTIC FORMATION NEAR RUSSIAN RIVER.

sand as if with so many trip-hammers. Every thing has a throb; the solid earth seems to

tremble, and the great rocks to oscillate. The white rime that was poured over the

strand rushes back with incredible velocity. He were a bold swimmer who could fight through that undertow. As it rushes back it meets another oncoming wave, and, striking its base, hurles it down with crashing fury; and then there is a hush. The sea is silent. The birds and the insects, taking courage, begin to sing and to chirp until there comes another solemn booming, and the roar of another broken, rolling wave. And this eternal symphony takes place in a kind of bay, where the mountains, rushing to battle with the sea, have advanced far into the waters, and their outposts have been terribly mangled. The great promontory has been severed from the mountain; and between them are three square, isolated crags, with shallow water around them. Here the sea rages and bellows like a wild thing; and the waters seem to lose themselves in eddies and whirlpools, and to be unable to find their way back to the sea, so that they might charge in line with the great, solemn rollers. The old promontory, now become an isolated crag, is covered with sea-birds, and its top is already white with their guano, although it could hardly have been separated from the main-land for more than a few hundred years. Seals sometimes come here, but not very often, as they are not protected. On the beach there are few shells, but there is an abundance of the broad, ribbon-like sea-weed which is gathered on the coasts of Ireland and Scotland, and burned for kelp. Blocks of granite show themselves occasionally peeping up from the sand, and probably are boulders deposited there in by-gone ages, which the sands have covered.

The coast south as far as Monterey offers few specialties of picturesque beauty, being mostly foot-hills covered with pine-trees, and mountains of small height and monotonous outline behind them. There are few bold headlands, the land sloping, for the most part, with a gentle declivity toward the sea.

It is difficult to say at what time of year this view is most beautiful. In the summer the winds rage with more intensity than in the winter, and the clouds assume fantastic forms, which combine with the raging of the sea to make most exquisite and forcible pictures. But in the winter, when the breezes blow from the southwest, though the fury of the great rollers is mitigated, and the bursting of the breakers less formidable, there is an added charm in the soft, misty haze which dwells upon the mountains, which to many seems preferable. For, under this influence the Coast Range, which pours down its lines of rugged peaks at Point San Pedro into the midst of the wild waves, has a strangely soft and tender aspect. The impression which the ranges of crags make upon the spectator is no longer one of barren, savage desolation. The haze envelops them in tender tones, and gives to their coldness a warmth which, in truth, is not their own, and is calculated to deceive. But to the painter's eye how exquisite is the gradation of those warm and softened gray hues which seem not very distant, low down at the horizon, and melt by almost imperceptible degrees into the clear air, showing lines which are faintly traced and yet distinct!

A MAN OF HONOR.

THE wind has fallen, and the air is breathlessly still, but cold with a coldness keen, nipping, and intense. Down from the pale, star-dotted sapphire of a heaven without one cloud, stream the white, wintry splendors of a full January moon. It is a night when the ghost of every breath we breathe mounts up before us in vaporous pearl; when the brittle-frozen earth seems faintly to ring under our brisk foot; when the most cumbrous coat weighs feather-like, and the most interminable muffler has not enough of coils.

But for all the night's arctic terrors there is quite a little throng of people willing to brave them, it seems, leaving one of the largest and most luxurious country-houses in Westchester to take their way toward a certain neighboring lake—a sheet of steel-blue scintillation now, and frozen as rigid as iron.

"I shall be dead of the cold before I get started," screams Meta Shefflyn, looking down at a certain muffled and mittened object, whose name is Felix Cary, and who has been helping her in the screwing-on of her skates. I may as well add, perhaps, that an engagement between Meta and this muffled object has been made known to the world for at least ten days past. "Can't you hurry, Felix?" she goes merrily on. "I know I'm just a wretch to think so much of my own comfort, but then you ought to remember, you know, that in putting on the skates you can sort of keep your blood in circulation, while I have to sit still and rapidly understand just how it feels to be a form of ice-cream."

"Exquisite gratitude!" grunts Felix, under his peaked seal-skin cap. "Touching self-forgetfulness!"

He liberates her presently, and she darts away with a lovely, willowy gracefulness, revealing, after the notice of an instant, how complete a possessor she is of this most baffling accomplishment. She does not float off along that still breadth of radiance which sweeps beyond in one long, glimmering curve. The rest of the party are all arming for the fray as yet, and, being their hostess, Meta feels that any such outburst of science must somehow flavor of the discourteous.

As, keeping near her guests, she moves over the brilliant ice with easeful and pleasant bends of the figure, with slides now lingering and leisureful, now fleet and impetuous, Felix finds it difficult work to absorb himself wholly with the getting on of his skates, and not to give this restless figure some share of his notice. "How beautiful she is!" he tells himself, with the proudest of proud heart-glows. "What a very Fortunio I am to have won her, even admitting that I possess eligibility, as the dowagers call it, and am considerably less ugly than many men whom I know!"

And, in truth, it would be only justice to pardon Felix for this pride in his approaching possessorship. Meta's figure is tall, full-moulded, and carried at all times with the grace of a deer, but to-night more noticeable in this latter respect by reason of her match-

less skating. Then, too, the moonlight is vivid enough to show her glowing eyes and richly-flushed cheeks, the smile-loving mobile mouth, the clean-chiseled, classic nose, and the shapely, faultless oval of her face.

"Don't you think it almost bad style to skate *quite* so well?" Meta's cousin, Anna Denning, inquires of her present devotee, a certain blond-haired and blameless-mannered Mr. Frank Ridgeway, while her eyes follow Meta's weird wanderings. "I mean, you know, now that skating has gone so completely out of fashion."

Mr. Ridgeway wants passionately to agree with the maker of these remarks; indeed, it always costs him a pang to disagree flatly with any lady. But he is forced, just now, to murmur an opposite opinion, delivered, by-the-by, in tones of the most apologetic humility.

Anna Denning shrugs her rather thin shoulders. She never could see what men seem to see in Meta. But it must be told, as a sort of excuse for Anna, that she unites, in her feelings toward Meta, all the natural bitterness of a poor relation with that even more trying experience of a poor relation who has been very well treated. Meta has always been kind to her cousin, and Meta's wealthy father has always been (within the bounds of reasonable prudence) kind to his improvident, incapable step-brother. And everybody knows what a hard time this sort of family benevolence has in getting itself labeled with the proper ticket. Of course, Anna does not dislike Meta; she would have looked at you in round-eyed rebuke if you had accused her of that. But if you had put to her the plain questions, "Do you love your cousin as past goodness ought to make you love her?" or, "Are you not jealous of Meta Shefflyn down to the roots of your being?" it is doubtful whether she would not have reddened guiltily to the ear-tips before she dreamed of answering them.

Presently the whole party are in a condition that cannot with truth be called on their feet; for among a pronounced feminine majority there is much slipping, and stumbling, and clashing of skates. Here and there we see creditable progress and a lack of tumbles; one or two of the ladies besides Meta skate with real skill; and nearly all the men avoid flagrant exposures of ignorance.

But Meta reigns supreme. Her long, waltz-like, far-swerving strokes seem to carry her in a twinkling just whither she wants to go; she flits past people like a beautiful (but warmly-clad) phantom, and darts between them with a provoking ease that seems to threaten collision up to the ultimate moment, and then quietly to defy it. She fails specially to affect the companionship of Felix here on the ice. To tell the truth, his skating does not by a single stroke miss the commonplace of mediocrity. She has already had the rudeness to tell Felix, on one or two similar occasions of the past, that a pair of skates makes him barely escape being a bore.

He cannot repress a little flurried mustache-gnawing, however, when he sees Lucien Abbott, another cousin of Meta's, join her by the most graceful of turns, and flirt about with her, hand-in-hand, for what seems a little eternity.

Lucien is a fine skater, and Meta tells him so in a few short words, divested of the least ceremony; for they are very intimate, these cousins, very fond of one another, and very plain-spoken each to each. "But why don't you go and skate with Amelia Luttrell?" she wants presently to know, with not a little brusqueness. "I asked you up for each other, and you understand it perfectly well."

Lucien gives a bitter little laugh.

"I don't, as a rule, thrust myself upon people."

Just then they meet Miss Amelia Luttrell (a large, handsome blonde) struggling rather painfully in the society of a male supporter, the supporter himself not being of the securest.

"Oh, I see how it is," laughs Meta, periously loud, as they slip past. "Amelia's skating is deadly in its badness. Such fearful weather, too! Clever Lucien!"

She does not see the look of pain, now, that crosses her cousin's clean-shaven, rather melancholy face. The "outer edge" is not favorable to any close scrutiny of a companion's expression.

Before long, Lucien and Meta are separated. She is obliged to subject her wings, as it were, to a temporary clipping, in the matter of accompanying several neophytes about the lake. But at last she seizes a moment of freedom, and shoots away in solitary delight. Pleasure at her emancipation doubtless puts added speed into Meta's progress. If it is not precisely Camilla skimming the plain, it is something of a similarly rapid tendency.

All at once, while looking ahead during her mad course, she discovers Felix advancing from a directly opposite quarter. Felix is alone. Even this most brilliant of brilliant moons will not permit her to discover, until they draw nearer together, whether or no Felix is out of humor. But she strongly suspects it. He is skating a little worse than usual, if this be a sign.

And now it occurs to Meta that she may as well slacken her pace, provided she intends propitiating her lover's supposed annoyance. It must be that this slackening process is performed with a little too much reckless haste. There may come to the best of carpenters an unguarded moment, when lo! the carefully-wielded tool slips away, and behold a gashed finger. Such a moment comes to Meta now. No matter how it is done, she feels that she has suddenly lost her balance, and struggles terribly, for a second or so, to regain it. But she cannot regain it, and her tough struggle (with which the approaching Felix and her own pride have a great deal to do) results at last in dire failure. The whole proceeding barely occupies two seconds, one might say, but after this droplet of time Meta has fallen face foremost upon the ice; and so precipitate, so sudden, and so generally unlucky is the fall, that she lies quite inert and unconscious after its occurrence.

Meanwhile, up speeds Felix, who has seen, from afar, the fall and the horrible stillness that follows it. Just as he has lifted Meta, and has discovered with horror that a stream of blood is oozing from some portion of her

face, Lucien appears upon the scene. Others soon join the group, and there are many wailing cries among the ladies, and not a few symptoms shown of imitating Meta in the matter of unconsciousness. But these symptoms lead to nothing. It is a perilous feat to swoon away on skates; and then the cold is a great antagonist to keeping still.

It is not by any means a light task to skate under the burden of such a dead weight as that made by Meta just at present. And it is a task which requires good skating; wherefore Lucien acts as the assistant of Felix, proving of marked service in getting the senseless girl off the ice. A blanket-shawl is spread upon the frozen ground, and she is laid upon it at full length. The bleeding has now stopped altogether. Presently, while a little throng bend above her with looks of the keenest and most unconcealed solicitude, she opens her eyes, gives a long, painful moan, and tremulously murmurs:

"Oh, my nose!"

Then her eyes again close for a moment, and at length reopen themselves with an accompanying look of sharpest suffering. She makes an effort to rise, that ends in failure; after that she makes another, which results in a sitting posture.

"Oh, let me only get home!" she moans; and eager hands hurry to unfasten her skates.

She manages to walk very creditably under the combined aid of Felix and Lucien. The trio reach home quite a long while before any of their companions, whom the doffing of skates and the helping to doff them delay considerably.

Poor Meta is received with open arms and a wild shriek by the best and silliest of mothers. Being instantly conveyed to her room, she is deluged by maternal anxiety, with every thing of a resuscitating nature, from a bottle of arnica to a cup of steaming tea.

While Felix, barred from the bedchamber, is quivering with solicitude, the rest of the party arrive in groups. He envies more than one of the ladies who hurry up-stairs into Meta's apartment. At last a certain lady returns with tidings of the sufferer. As it happens, the bearer of these tidings is Anna Denning.

"Dear Meta feels so much better," she coos to the assembled company, making her face quite funereal, "in every way except her poor nose. Oh, that is so dreadful! Swollen so as to make her look a perfect fright, poor dear! Aunt Katharine has thought best to send for the doctor. It may be broken, you know."

Omnus (quite horrified): "Broken!" Anna looks with a sweet pensiveness upon Felix, whom she hates—hates, by-the-way, because he has fallen in love with Meta and not herself. I know of nothing else remotely assignable as a cause of this occult antipathy.

"Would it not be dreadful," she makes pathetic inquiry of Felix, "to see poor, dear Meta with a broken nose?"

Felix shudders, but makes no answer. Not very long after this the doctor arrives. He is a man nearly seven feet high, most disproportionately slim, and wearing a smile that nearly reaches from very large and prominent ear number one to very large and prominent

ear number two. Felix follows this caprice of Nature up to the top landing of the staircase, and sees him enter the chamber of his beloved.

It is a long time before he emerges. When he does the immense smile is exactly as Felix last left it. "Doctor," he plunges, "what do you think of Met—of Miss Shefflyn?"

"A bad bruise—a truly very bad bruise." The smile indicates no decrease whatever. This gentleman has evidently reduced to a science the art of keeping it undiminished, and of talking at one and the same time.

However it is done, Felix finds himself not possessed, when the doctor has taken his departure, of the information he was determined to get. The man with the smile has somehow managed to beat a very graceful retreat under as sharp a fire of questions as Miss Shefflyn's adorer can administer. But he has also managed not to drop, during his retreat, a morsel of what may positively be termed information.

Disturbed, perplexed, Felix has recourse to Mrs. Shefflyn. "Oh, such an awful swelling!" that lady bleats. "Wouldn't you like to see it?—Good gracious! who has a better right? Ah, if her uncle Adolph were only here, and not thousands of miles off in Europe! I do believe he is the best doctor that ever lived! I don't feel like trusting any one else!"

"What did this doctor say?" ventures Felix, almost afraid of the answer that shall come.

But the man with the smile, it seems, has been sphinx-like in the entirety of his reticence. Presently, Felix finds himself at Meta's bedside. They lift the cloths for him, and show him a terrible bluish bruise. He forgets on the instant all about breakage or fracture, and only remembers that his darling is in pain.

It takes two weeks before they learn the exact truth as to results. The thing, as one might say, announces itself. In her fall upon the ice, that unfortunate evening, Meta has done her beauty a most marked and permanent injury. It is wonderful how large a shareholder our nose is apt to be in whatever amount of facial beauty-attock may constitute our regular standing capital. Poor Meta's is not one of those breakages that have been known to lend the countenance a certain element of command and self-assertion. It does not concern the bridge, but rather the fore portion, and (although I have slight wish to seem explicit regarding what might better, perhaps, be left wholly undescribed) its effect is a marked dislodgment in a side direction, that, if not precisely a deformity, is at least a pronounced disfigurement.

The bad news has only a small circle of persons among whom, at first, to spread itself. All Meta's gay troop of friends have gone back to town many days ago. So disastrously has her "country-party" ended that their young hostess is unable to follow them; and she, her mother, and the devoted Felix, whose copious thousands a year make business in the city a useless risk, alone remain with her in the great dreary house; warm enough for thorough comfort, but cheerless,

because its prevailing appointments are those of a summer dwelling, and the weather still keeps unrelentingly cold.

But at last there is a return to town, and the sort of convalescence following it which enables Meta to receive some of her many friends in her own chamber, out of bed and thoroughly dressed. In truth, it is no convalescence whatever, but a gradual way that Meta Shefflyn has hit upon of introducing her new second self into that social world which, a few weeks previously, she left as its reigning beauty.

There soon begins a lugubrious wail of sympathy throughout all the girl's acquaintance, which she is fortunate enough not to hear. The intelligence travels like wildfire; and, among those who have not seen Meta, it would be hard to say what fantastic impressions of her calamity rumor has been good enough to spread.

"Queer position for Caryl!" observes a certain somebody to a certain somebody else (both males), when hobnobbing about the matter in a certain club-window. "Such awful luck, you know! If he were poor, now, and going in for his daily bread and all that sort of thing, so that the whole affair wouldn't have made any difference to him, of course it wouldn't have happened. But this must have been a clear case of love, you know, and good looks, and all that. By Jove! he's deuced awkwardly placed; but I know what I'd do under the trying circumstances."

"What?"

"I'd break it off."

"The nose?"

"No, you chaffing dog, the engagement. Why, they say the poor thing's nose is squashed in flat to her face. She ought to have sense enough to let him off."

"Well, it seems she hasn't. The wedding comes off, I believe, next April."

For once gossip speaks truth. Meta has more than a single time burst forth, with a great deal of sincere meaning in her still lovely eyes: "I am sure you don't want to marry such a horrid disfigured thing as I have become, Felix. Now, tell me the truth, and don't spare my feelings." But Felix has invariably made some answer of so contradictory a nature as to render further argument quite *nil*. He has been the soul of attention and lover-like kindness since the return to town. Nothing seems to keep him from a very long visit to the house at least once a day. In a hundred ways he testifies his devotion. Meta feels that she ought to be charmed—ought in a measure to feel compensated for her affliction, which, by-the-by, she finds herself quite unable to get blue over, and has from the first treated and criticised with a sort of some regret, most amazing to some friends and pleasing to others.

But somehow she is not charmed. She is often perplexed instead. There is a look in her lover's eyes now and then that haunts her. And then at times that singular—no, no, she has not the right to dream of calling it coldness, after all the devotion he has shown since her sickness! Occasionally trains of thought such as this will end with Meta in a light little cry.

As for Felix, he tells himself, three-quar-

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ters of the day, that he is the most miserable of men, and the remaining quarter assures himself, amid outbursts of internal invisible hysteria (for, decidedly, there is such a malady), that he will bear his misfortune bravely—that he will suffer and be strong.

When at first the conviction presented itself that, since her accident, he had ceased to care for Meta Shefflyn, Felix actually laughed in his thoughts over what he believed the most grotesque of transient vagaries. But, in a very little while, he becomes the permanent victim of this same conviction. This love, that he believed rooted in almost imperishable and beautiful sentiment, has been nothing except a mere gross physical admiration—something that chance can destroy at pleasure, that time can wither up and annul, that soul or intellect is concerned with in no imaginable manner.

But, for all the saturnine reflections in which Felix may choose to indulge, obstinately the fact of his sudden and unconquerable aversion yet remains. It is an aversion, he assures his own thoughts; there can be no doubt here. The old Meta is a memory, a shadow, a dream of the past.

He has reasoned with himself, he has struggled with himself, but now he is tired of all this. He says to himself, almost in so many words: "I am weary with trying. I shall try no more. Let things be as they are. Let the great river take me to the main; I cannot battle with its opposing current; I cannot fight against Fate. But there are two things I can do, and those are—hold my tongue, and be married in April."

Sometimes during the interval that elapses before his wedding-day, Felix thinks of what his future was to have been, and shudders. How charming those few weeks of Southern travel would have proved! Then, in June, the delightful cottage, already engaged, adjoining—Hotel. Then, in the autumn, Europe.

But he sets his teeth and tells himself that he will carry the programme rigidly through. And Meta shall never know, if he can keep her from knowing. Can he always deceive her? Perhaps not. But if she learns the truth, it shall not, at least, be his fault.

It is an old aphorism, that the worst kind of villainy is committed under an impression on the wrong-doer's part that he is fulfilling his duty. Surely, there was never more unadulterated hypocrisy than this of Felix (provided his own self-communings be the complete truth), employed with a rigid belief that he is making the sacrifice which his honor demands. "As a man of honor," he would sometimes explain to himself, with a smile worthy of Cato, "I can do no more, no less."

In April they are married, very privately. Once or twice during the actual ceremony it will be no exaggeration to say that Felix feels as though he were going mad. But he behaves with thorough sanity, and does not even drop the wedding-ring when handing it to the minister in order. A few of the guests who are present remark his paleness; but then he is usually pale. As for any thing like the general attention, that, as usual in such cases, is tyrannically monopolized by the bride.

Immediately after the ceremony they begin their course of Southern travel. The variety of scene, and the constant influence of change under which he lives for the next two months, enable Felix (or, so he is prompt in persuading himself) to endure the slow, steadfast wear and tear of his most aggravating position. As far as concerns the merciful continuation of his hypocritical rôle, he believes that to have been persevered in with a pertinacity that only equals its success.

Success! Meta is already quivering under the consciousness that he has ceased really to care for her. Now, when rectification is impossible, she sees her mistake. They should never have been married. Then woman's instinct warned her before it was too late; but, unhappily, she only regarded the warning in rather flippant appeals to Felix, and in forcing herself to feel temporarily comforted by his ready replies. She understands her position quite clearly. She has discovered the exact reason of the change in Felix, and sneered in spite of herself as she made the discovery. But, for all this, she loves him with unchanged love.

When the cottage-life begins, Felix prepares himself to be wretched, and he is wretched. But it is somehow a misery that rarely strolls across the road toward the hotel, and forgets to come back to dinner, or grows sweetly oblivious of bedtime. No; possibly the moral-hypocritical course in which he still nobly determines to persevere (being so thorough a man of honor), would interfere with any such lax and expository proceeding.

It soon happens that Miss Anna Denning appears at the hotel, under the protection of a married relative, who pays her bill, it is true, but who requires a vast amount of "companionship" in return for the benevolence. Anna drops over a great deal to the Caryls' cottage. After a little while Felix confesses to himself that her presence there is quite maddening. She never glances in Meta's direction without an "isn't-it-dreadful" sort of look, that makes for poor Felix the fact of his wretchedness more perpetually and exasperatingly present to him.

One day Anna announces that Miss Amelia Luttrell arrived at the hotel on the previous evening, accompanied by her parents.

Meta smiles.

"We shall have Lucien up here before long," she prophesies, smilingly, "or else I am altogether wrong."

"Do you really think he cares for her?" draws Anna. "He must be very inconstant. He used to dote on you, you know."

Meta blushes the least in the world.

"Aha, my dear," exclaims Felix, with the broadest of made-to-order smiles, "here is an awful disclosure of the past that I have never heard till to-day."

He is doing the moral hypocrite, now, and flattering himself, poor fellow, that nothing could be, histrionically, much finer. Anna never thinks of supposing that it is not all genuine. Nor does Miss Denning understand why Meta's face is almost fiery now, as she turns to her.

"Not a word more of that nonsense, Anna, please. Why, it was all over years ago. Cousins of eighteen and sixteen, or

thereabouts, only need to be of opposite sexes in order to fall deeply in love with each other."

Meta proves a true prophetess. In three or four days Lucien Abbott makes his appearance at the hotel. Lucien generally lounges at his ease during the summer, by-the-by. He is in an excellent business, but it is often said of himself and partner that they have such a mutual detestation of each other as to avoid meeting as much as possible, and so divide the year between them. Of course this report is about two-thirds exaggeration; but it is certain, nevertheless, that Lucien seems usually to have his summers quite to himself.

He comes a great deal to the Caryls'. Felix heartily enjoys his visits, too, and feels that Lucien's influence gradually instigates the excessive morbidness of his daily thoughts. Lucien is by no means possessed of what are termed "spirits," but the bright, good sense of his conversation produces a right enlivening effect on Felix.

Meta, too, seems to enjoy and anticipate his visits. They are much together. Indeed, as the summer grows older, they seem to fall gradually into the habit of taking long walks and holding long interviews. Felix, if he thinks at all of this turn in affairs, congratulates himself upon its having taken place. Is he not indebted to Lucien for moments of relaxation and relief?—moments when he can let fall the mask and drop that wearying weight of the moral hypocrite's painful disguise?

Meanwhile, without suspecting it, Meta subjects herself to much ill-natured gossip as days lapse along. A country hotel is a sort of social calcium-light, and, in many cases, to live as near one as the Caryls do is to have the most searching and penetrating of glares thrown upon one's commonest actions. Quite a number of hard things is said about Mrs. Caryl and her cousin, Mr. Abbott; but, as usual in such cases, the subjects of these comments do not remotely dream of them; nor does any least echo of the babble reach the ears of Felix.

In the latter portion of August it happens that Mr. Frank Everett, an old and valued friend, writes Felix a charming note of invitation to his present home on the Hudson. This Everett has recently arrived from abroad, after an absence of four or five years, bringing with him a French bride, of whose beauty Felix has previously heard most rose-colored reports. "We must refresh our old friendship," the letter states, "by a sight of each other's faces; and I am sure you gladly join me in the wish that our wives shall become fast friends. Therefore, as the whirl of town-life would only allow these ladies, perhaps, to exchange words together about once a month, I propose—and my wife earnestly joins in the proposition—that you bring—"

Felix is alone when he receives this letter; and when he has read thus far he flings it from him, and tragically buries his head in a convenient sofa-cushion. "Take Meta to Frank Everett's!" he excitedly reflects. "Never! What! shall he go recklessly to the very place where his wretchedness would be aggravated tenfold by the sight of his friend's wedded happiness? Ah, Frank could

not have devised a more cruel dagger-thrust than this invitation."

Nevertheless, before many days Felix resolves to go and see his friend, unaccompanied by Meta. The change of air and scene may be of benefit, he decides; and of late his health has suffered from a few dyspeptic qualms. It will not be hard to make excuses for Meta. Besides, he is anxious enough to see Frank, the close friend of his early manhood, whom he still holds in the warmest regard.

And so Felix goes. Young Mrs. Everett is at first a severe trial to him. She is a glorious, languid-eyed brunette. She is a sort of show-beauty. It does not escape Felix that her nose is of most delicate Grecian outline. He finds himself having, very soon, however, the jolliest of times, and stays five good days longer than he had expected to stay. He receives during the visit two letters from Meta, and writes two. It is very easy, indeed, he finds, to play the moral hypocrite on paper. One may even, as though conscious of one's power, linger over the minor and merely graceful details of one's part.

And Meta, as she reads these letters, crimson half in anger, half in shame. Their mode of composition, the spirit that has prompted every line, is as plain as day to her. She sees beyond their cobwebs of sham with only too effortless an ease.

On the day of his return home Felix reaches the cottage at perhaps four o'clock in the afternoon. He walks into the hall through the green-blind doors, and makes the tour of the little building, so to speak, in momentary expectation of seeing his wife. But Meta appears to be nowhere. Presently he encounters a servant.

"Where is Mrs. Caryl?"

The answer amazes Felix, it is so much the antipode of what he expected to receive. "Mrs. Caryl went away yesterday afternoon, sir, and said nothing about when she would be back. But to tell the truth, sir, she went off in such a hurry that none of us knew she was going till we saw her at the door being helped into a carriage by Mr. Abbott. She looked kind o' worried about something."

Greatly puzzled, Felix walks over to the hotel. Almost the first lady whom he meets on the great piazza is Anna Denning.

Anna welcomes him quite rapturously. "Looking so much better," she gushes, in *finale*, "than when you went away."

Felix, at last enabled to speak, exclaims:

"Anna, for Heaven's sake, what is this mystery about Meta?"

Anna's glossy-black eyebrows gather perplexedly over her small, brilliant, black eyes. She lays one white, thin band on the arm of Felix. "I was sure you came unexpectedly. It is so, is it not?"

"Yes," he answers. "In my last letter to Meta I wrote that she might expect me on Friday. But something has brought me back three days earlier. I think it was a sort—of—of feeling that all was not well at home."

Anna laughs the most dismal of little treble laughs. "All well, did you say? Dear me! I do so hate to be the bearer of bad tidings."

"Of bad tidings?" Felix bursts forth. "What on earth do you mean?"

"Oh, nothing like death or sickness, you know—certainly not." Here Anna looks with immense pensiveness on one of her rings—a gift from Meta, by-the-by. "But—" And by degrees Felix Caryl is made aware of the following facts:

That everybody has been considering Meta's and Lucien Abbott's conduct very imprudent during the past six weeks or so; that, while Felix was away, they were even more together than ever before; that yesterday Lucien was known to pay his hotel-bill, and afterward to drive to the station with Meta, where they took the train together for parts unknown—such parts being probably New York.

As Anna finishes her coolingly and simperingly delivered narrative, she glances up at Felix, and finds that his face is whiter than she has ever seen any living face till now.

"Thanks," he murmurs, after she has finished; and is beginning to move away, when his wife's cousin reaches out an imploring and detaining hand.

"I do hope, Felix, that you will exonerate me from any thing like the charge of being a scandal-monger, you know. Every word I have uttered is the simple and sacred truth, much as I hate—"

Felix walks away; not because he wishes to be rude, but because he forgets to be polite. His agitation makes him forget. It is the most terrible sort of agitation—that which can move about with placid manners and a ghastly face, while inwardly suffering unutterable pangs.

He already half believes in the most injurious deduction which can be drawn from Anna's story. And he suffers anguish in dwelling upon the probable criminality of Meta's conduct. But the very fact of this anguish making itself felt shows Felix to himself in most contemptible and despicable colors.

He realizes thoroughly—and it is the first time, during a period which began weeks before his marriage, that any such realization has occurred—how vanity has been blinding his eyes to the true cause of all his misery. It is not that he loves Meta to-day one whit less than at the hour of their betrothal; it is rather that, while writhing under the lash of a disappointment keener than any thing his careless and indulged life had ever before dreamed of enduring, pride has sealed his lips to the confession of the real truth. He refrained from telling himself: "I was proud to excess of her brilliant beauty, and secretly gloried that other men envied me my possession of so exquisite a creature; and, for that reason, it is iron entering my soul when I see her so sadly changed: I hate that my friends should look upon her; I hate that the world should know of her misfortune and my own; and, because of this, her very presence, while I love it none the less than of old, acts as a perpetual stimulus to my mortification."

He did not address himself in these terms. He rather, as we know, hid from himself the paltry but stinging wound in his own vanity under a very mound of diligently-imagined aversion. He was too loftily proud to admit that he could be so pettily and falsely proud.

His grand moral hypocrisy, his silent boast that he was a man of honor, all this had been the cotton wherewith he had deadened his hearing to that little, feeble, trivial wall whose pathos might thus be rendered: "I am sick to the heart, because my Meta is not going to make me the most envied, no less than the happiest of men."

But now the veil is rent; there is no more self-deception. It is all open dealing at last between Felix Caryl and his own soul.

After returning to the cottage, he spends until seven o'clock locked within his own study. The room has grown almost pitch-dark (for the days have now shortened into the days of early autumn), when a sudden arrival forces Felix from his solitude to play the host.

The arrival is Meta's uncle, Mr. Adolph Shefflyn, a genial little man, whose age might be mentioned as suspiciously forty-five, and who is a physician of very marked eminence. He returned from Europe in June, has been threatening Meta with a visit all summer, and finally, on his way home from a flying trip to the mountains, pounces upon the Caryls' hearth-stone.

Felix finds the doctor's society inexpressibly painful. Once or twice he is on the point of telling him every thing, and then feels a sickening sense of incapacity, that is nothing except the haughty veto of his own pride. He lies to Dr. Shefflyn about the cause of Meta's absence; and then, in his whirled state, finds himself on the point of forgetting what the precise nature of the lie has been. At nine o'clock he is intensely relieved by having the doctor go to bed.

Not long afterward, without having been quite sure of his whereabouts, he wakes up, as it were, to a thorough knowledge that he is standing in Meta's little dressing-room, having just placed his lamp upon a small adjacent table. Felix looks about him rather bewilderedly, and asks himself why he has come hither. As the question passes through his mind, he catches sight of what seems an open letter, lying upon the large, rose-colored and white dressing-table, which somehow brings Meta most forcibly before him.

He draws nearer. For a moment he hesitates; then, remembering what terrible suspicions it may be in the power of this letter to confirm or to dissipate, he takes it and reads the following lines:

"—Hotel, September—, 187—.

"MY DEAR META: It is true. You love more bravely and nobly than I, though not more passionately. I am all feverish and selfish impatience; you are calm, enduring, resigned to the bitterness of your fate. The advice which you gave me I mean to profit by. You shall discover, when we next meet, that I have done so.

"I suppose many people would tell us that there is nothing uncommon in our lots. But is hopeless love so common, after all? I have been thinking over the lives of my friends, and I find but few instances where its blighting touch has fallen upon them. I shall see you to-morrow morning, as usual.

"*A toi de cœur,*
"LUCIEN"

Felix does not even go to bed that night. The wildest thoughts keep his brain literally on fire until dawn.

At nine o'clock on the following morning Dr. Shefflyn is met at breakfast by a haggard-looking man, whom (knowing Felix but slightly) he almost fails to recognize as his host of the previous evening.

Dr. Shefflyn has the good sense to eat his breakfast between passages of his own pleasant monologue, and ask no ill-advised questions. After breakfast he tells Felix, in the most cordial of tones, that he would like to take a short stroll about the grounds adjoining the hotel. "I won't bore you to join me," he adds, "because I see you have some letters to read. No, no, now, my dear fellow" (as Felix rises), "pray don't think of coming."

The truth is, Dr. Shefflyn would rather be alone during his walk. It is to be a ruminative walk. Matters at the cottage look complicated and mysterious. Secretly he begins to disbelieve the explanation which Felix has given of his wife's absence. "She has gone to town to stay with her mother for a few days; she will probably be home tomorrow," seemed plausible enough when he first heard it, but now the doctor finds himself speculating as to its truth. Anyhow, the case appears a serious one, with certain ugly symptoms. Dr. Shefflyn wishes that he could only make a complete and immediate diagnosis of it.

After the doctor's departure, Felix goes into his study. Considering his wakeful night, it is not at all odd that a heavy drowsiness should soon begin with him its overpowering work. He throws himself on the lounge and turns his head toward the wall. Almost instantly he falls into a doze. But it must be the lightest of light dozes, for these words, spoken with little more than Meta Caryl's usual softness of voice, have the effect of instantly wakening him:

"Ah, Felix, are you here? And are you unwell, by the way?"

He springs to his feet, white-faced, and with flashing eyes.

"By what right," he asks, hoarse-voiced, "do you dare enter my house after having so disgraced it?"

She stares at him in the widest-eyed amazement.

"Disgraced it!"

Felix plunges a hand into one of his pockets, and draws forth Lucien's letter.

"All paltry deceit is quite useless," he cries. "You doubtless remember this?"

He extends the paper. She reaches forth a hand and takes it, the gesture being one that shows her intensity of bewilderment more than twenty exclamations could do.

The color surges into her face as she recognizes the letter. Felix, meanwhile, is keenly watching her.

Quite a long silence follows. Meta at length breaks it in tones clear but not loud.

"I suppose that you suspect this of being a love-letter." A faint, sad smile rims her lips. "It is, in a certain way." And now her eye suddenly flashes into great brightness, the flush fades into a single scarlet spot on each cheek, and her voice rings with hard, almost imperious resonance.

"I believe, Felix, that if you had one spark of regard for me you would not have insulted my honor by suspecting it on so slight a ground as this." She passes the letter contemptuously toward him. "Read that letter; you have as yet only skimmed it over, I am sure, or you would see what it really means. Lucien Abbott is in love, and has been in love for months, with Amelia Luttrell. He says that his passion is unconquerable; but she gives him no hope of ever winning her." Thus far Meta speaks with no slightest emotional sign; but now her voice quivers, and her eyes shine even more brilliantly yet because of the tears that fill them. "And I think you should guess the rest, Felix Caryl. Your face shows me that you have been suffering. It cannot have been for me. No, you have long ago ceased to love me; you ceased to love me even before our marriage, when—when—but never mind. I have been wrong, perhaps, to make such a confidant of Lucien, but reticence has been very hard at certain moments—moments, Felix, when I felt as if I could move heaven and earth to make you love me as of old, yet could find no way—no way!"

There is a trace of softness in her husband's voice when he speaks, though you see there the effort to be very stern.

"What does your absence from home mean?—your departure from here with Lucien Abbott? How can you explain this?"

She can scarcely speak for tears, though her eyes flash indignant fire.

"Poor mother telegraphed to me that she was dying. I was with Lucien when I received the telegram. He was going to town himself that day, and accompanied me. As it has proved, poor mother was only foolishly frightened about herself, but I was so wrought up by the message that I dressed with the wildest speed, and forgot every thing—even to tell the servants where I had gone in case you came home."

The tears rush so fast now (and they are tears of utter shame at his suspicion) that she buries her face in her handkerchief and stands, a mournful, sob-shaken figure, before her husband.

As for Felix, he has felt the last cloud of distrust leave his mind some little space ago. It is the excess of his joyous disappointment that has kept him, even during this brief while, motionless and silent. A moment after, Meta has drooped her head, however; he springs forward and girds her with both arms, and against her tear-stained cheek presses his own, while murmuring, in tones that seem to come from a very soulful of the intensest feeling:

"God help me, Meta, I have been weak, cowardly, a slave, a fool! But it is all past now! Don't question me, please; some other time I will tell you every thing—I will lay bare to you just what my life has been since—since a little while before we were married. Only be sure of this, Meta: I have never ceased to love you just as when we were first engaged. Believe this, I beg of you; I swear that it is the truth. And now kiss me, and leave me for a little while."

Felix has been alone in the study for full-

ly an hour, when there sounds a soft knock at the closed door.

"Come in," he proposes.

It is Meta. Her face is beaming with smiles; her eyes are like two great stars.

"O Felix!" she bursts forth, seating herself at his side, "I have just heard such good news!"

"Good news?"

"Glorious! Uncle Adolph (you never told me he was here) has been looking at—at my nose. He says it has been shamefully treated, and can very probably be put in shape again, though the operation may be rather painful unless I take—"

"No, no," Felix interrupts, almost harshly, seizing both her hands, and pressing a sort of excited kiss upon each, "I shall not hear of such a thing. I want you to be just as you are. I would rather have you this way than as you used to be. Your uncle Adolph shall not touch you!"

Meta looks at him in wonderment. It is certainly a very odd reception of the glorious news. But men are such anomalies, and Felix is rapidly showing himself the most marvelous of all. Meanwhile, her mind is quite made up on the subject of Uncle Adolph and the operation.

EDGAR FAWCETT.

INCIDENTS OF MINING.

BY DELVER.

I.

WHAT great events sometimes depend, as it were, upon the turning of a hand! It was, at one time, in the power of the captain of a Boston vessel to have anticipated the discovery of gold in California by half a century; but his desire to finish the business he had started on—to get a cargo of furs—turned him from the trail, and his hard-headed faithfulness postponed for half a hundred years the financial and political sequences of that event.

A worthy aged gentleman, now dead, but then doing business in Boston, once related to us the incidents which, we think, were never before in print. About the beginning of the present century, this person, then quite young, was attached in some capacity to the personal complement of a vessel of some few hundred tons, sent out by an Eastern-American firm, to trade for furs with the Indians of Upper and Lower California, and all along the northwestern coast.

Those were the happy times commemorated by Irving, in his "Astoria," when a sable-skin, worth twenty-five dollars in sycee-silver in Canton, just across the water, could be got on the Northwestern coast for six tenpenny nails, costing, including expense of outfit, wear and tear of vessel, etc., etc., say about ten cents for the six nails.

The fur-trader had parted with a large portion of her goods for the precious furs she went for, when, stopping at an anchorage-ground off the coast of Upper California, some gold ornaments having been observed about the persons of several of the Indians who had come aboard the ship to trade, con-

versation ensued, through the interpreter, between the captain and the chief of the party, during which the chief was observed to make gestures and address imperative words in a low voice to his party, at which several of the Indians hastily secreted some small pouches which they had been on the point of displaying. One of them, however, in his haste, dropped his pouch, which, on coming in contact with the deck, broke open and emitted a shower of yellow, flattened shot, apparently.

The color of these flat pieces of metal, and the evident perturbation of the chief, attracting the attention of the whites, one of the officers of the ship stooped and gathered up a few of them, as the Indian was hurriedly redepositing them in the skin of some small animal, which served as the pouch. The weight and color told the story—they were the then unknown California gold-scales.

Finding further attempts at concealment useless, the chief himself exhibited some scales of gold, and—his statement being fully confirmed by the other Indians—said that there was plenty of gold to be picked up at the distance of two or three days' march from the coast to the interior.

Waxing friendly with his acquisitions of nails, beads, and blankets, he urgently invited the captain to send a party of the ship's crew with him and his men to the place, promising them (as Dr. Johnson said of Thrale's brewery) the "potentiality of wealth beyond the boundless dreams of avarice."

The captain, however, had partly completed his voyage, he had a sure profit in his fur-trade, the inclement season was fast approaching, and, more than all, he feared treachery on the part of the Indians. The offer was declined. Then, her business concluded, the ship up anchor and set sail, "bearing off, for aye, with her," the chance of a fifty years' prior revelation to civilized men of the hundreds of millions of gold lying beneath the grass and in the river-beds of California.

Now, had the balance inclined with the captain the other way, and had he sent the expedition, it probably would have come back safely enough. The Indians would never have been such fools as to have closed their perennial fountain of tenpenny-nails and blankets—and California gold would have been discovered then.

Mexico would never have willingly parted with California. And probably our acquisition of that country would have been postponed to a hundred years later than the time at which we obtained it. But, before that time, we can see "in the mind's eye," the appropriation of that coast by England's overriding naval supremacy, the transference of immigration from the Atlantic to the Pacific coast, and the thousand accretions from abroad which go to swell the growth of a new and rising state.

We see the prosperity of New England dwindle to a stature commensurate with her rocky soil and inhospitable climate; the savage Indians repelling the march of civilization westward, so that Ohio stands in 1873 where Kansas stands now. We see a huge state rising on the Pacific coast, cramped

by the selfishness of English colonial policy, but so superabounding in material wealth that the throes of her inevitable emancipation complicate European politics, and disturb the course of events in the world ten times more than did the American Revolution. Chinese exclusiveness is assailed a half-century earlier, and the year 1873 sees what will be seen in 1973, that vast state broken into divers fragments, and ruled under—what?—perhaps the inevitable, world-dominating ideas of republicanism.

But the imagination may run riot in contemplation of what "might have been." All this never happened, but the vast and the trivial confront us hourly, side by side. Had the captain's fur-voyage been, up to that time, unsuccessful, had he been a whisky-drinking man, and especially defiant and enterprising just then, the reality of his experience might have surpassed the hopes of the mythical Argonauts, or of the roving searchers after "El Dorado."

In regard to these gold-scales, we well recollect, during the two or three years after the California gold discovery, sustaining arguments at different times, with six or a dozen "returned Californians," who insisted that no gold-ores, no gold in the living rock, was to be found in California. It was no use talking—they had been there, and therefore they knew. It was in vain that we told them the scales were produced by the simple disintegration of the tops of the gold-veins, and flattened afterward by glacial and other crushing and abrading action. The same thing happens with all but the hardest rocks, which contain metallic substances.

The magnesian rock which underlies the region called the "Chrome Barrens," extending through and from the northeastern portion of Maryland to the southeastern part of Pennsylvania, sheds its grains of peroxide of iron, charged with chromic acid (from which the well-known green, red, and yellow paints are made) in the same way, and these grains are washed out in the same manner as the California gold-scales.

There is in the Bay of Fundy, that strange bay between New Brunswick and Nova Scotia, where the tide rises thirty feet high in half an hour, a broad wide beach of wave-worn gravel, whose landward boundary is of a crescent form, the two rocky points of the crescent projecting toward the sea. Round these points pass any whose occasions call them to visit the beach, for, at all points between, a high and precipitous bluff of rock opposes itself to the ocean-waves, when, the tide rising, they come roaring and foaming in, a long wall of moving water from the seaward. The gravel of this beach is copiously charged with nodules and scales of native copper, produced in the way above referred to. We have seen a keg full of it, washed out, at the imminent risk of their lives, by the parties who displayed it. Could an ingenious inventor devise some craft upon which the washing could be performed, which craft could stand against the rushing tide, he would gain the fortune he may have been long looking for. The impetuous onslaught of the waters would "play old gooseberry" with any craft yet invented, except, possibly, the Great Eastern.

It is not size that is wanted, it is some new device.

An incident occurred there, some years ago, to a couple of scientific gentlemen, friends of ours.

These gentlemen found occasion, in the course of a scientific and geological expedition, to visit this queer bay. A guide, selected because he knew the times of the tides and the localities, was hired to accompany them. They examined the strata and the peculiar rocks there present, and then proceeded to the beach, where they devoted themselves still more to philosophizing, until the guide told them it was time to seek higher land. "A few minutes more," was the answer. "Well," said the guide, doubtfully. He waited, but the tide was not so obliging. "Heavens, there it comes!" shrieked the guide. "Run to the left point, for your lives!" He started off, at a rapid pace, for that extremity of the bay. Round this point they had passed, dry shod, an hour before. Our friends, casting a glance to the seaward, saw a broad, high mass of "old Ocean's briny waters" pressing toward them.

Now, they knew that the cattle of that region wander down, at low tide, to pick up at the margin of the sea—we know not what—fish left there, or the carrageen moss, or other sea-weeds. (Cattle in Greenland eat fish, we are told.) Further they knew that, at the changing of the course of the waters to the landward, the first surge of the reflux tide, with its white crest and its sullen roar, sends the cattle, tails horizontal, and sometimes bellowing in fright, landward to the point, and round the point, to the safe region of grass and summer daisies.

Dropping the algae, the cupriferous pebbles, or whatever else at the moment had engaged their attention, they hastened at utmost speed, following the guide, to the left point of the bay. The tide came roaring on. They reached the point in safety, and found but a foot of water there. But the rock beyond the point, and nearly perpendicular there, pressed farther down among the beach-sand, and, to get safe to the high land, they must go still farther oceanward.

They hastened to this new locality, but the place was ten feet deep with foaming waves. In dangerous moments men reflect quickly. Turning and repassing the point, they hurried at their greatest (natural) power of locomotion for the head of the bay, which, perpendicularly precipitous with rock, frowned forbiddingly before them. They were fairly caught in a *cul-de-sac*, like rats in the corner of a wall.

Had they not been men of science, they would either have despaired and died, or, abandoning themselves to the incoming waters, tried the narrow chance of floating. But they had noticed, in their morning examination of the ground, that, in the mass of rock, there were nearly perpendicular veins of laumontite rising to the surface. This rock has the peculiar character of breaking, in cubic masses, away from the rock which surrounds it, and away from its main body, when the frosts of winter, and the rains of summer, tumble the upper masses down below—if they are on the face of a cliff, thus having a chance

to fall—and leaving the remainder of the up-risen vein with steps of unequal height from the bottom of its point of exposure to the top.

They reached a vein, and the leader, hastily giving directions to his companions to follow him closely (lest the masses detached by the ascent of the first should, gaining momentum, strike the following parties), essayed to climb the acclivity. Some of the steps were three feet high, some ten inches, some four and six feet.

On they climbed, the leader boosted by his followers, and in turn lifting them up. (You may see the same process any day, in politics, in any part of the country, by-the-way.) Pinched toes, from the falling rocks, of the latter ones of the party, abraded finger-nails and finger-tips by all, in the breathlessness of their life-or-death race, were unheeded. They had sixty feet to climb, and, when a few feet up only, "the water lapping on the crag" had come close to them. They had no time even to take breath. Old Neptune's time of payment was up, and he was there, with, in a very terrible sense, a writ of *execution*, ready to be served.

They reached the top, hands bleeding, knees off their trousers, and lungs exhausted. Throwing themselves, prostrate with fatigue, upon the weather-worn surface of the vein of lammonite, they thanked God for their narrow escape; and, till they were again able to walk, watched the merciless waters, monarchs now of the bay, twist into the crevices of their stony barrier, retreat, advance again, and whisper old secrets from the ocean to the cockle-shells and the flapping sea-weeds of the rocks.

We have seen a singular result of the continuous flow and stop of waters upon rocks exposed to their action.

We crossed, one day, upon a mining errand, on foot, during a summer drought, the broad bed of the shallow Susquehanna River—that river with large pretensions and small execution, good only to feed a canal. (This it does do, by-the-way. We do not wish to speak disrespectfully of the Susquehanna. Its waters are as wet as those of any other river. We know, for we fell into it, one winter day, from a stumbling horse, while trying to ford it.)

As we crossed, that summer day, we noticed numerous perpendicular holes in the rocks; which rocks, with little pools between, had given us our footing as we crossed. Examining them, we found these holes an inch or more in diameter. Some of them were an inch or less deep. Some of them were six feet deep, and every one, with hardly an exception, had at the bottom a rounded pebble of stone. What was the cause of this?

This is the explanation. The pebbles, broken off from the tops of formations of hard rocks by the atmospheric and other action we have before spoken of, had been carried—embedded at the time in ice, probably—from points up the river down the stream till they had reached the uprising edges of the strata of softer rock, where we found them. There they stopped, and rocked to and fro, constantly at work as the waves of the Susquehanna moved toward the ocean, or receded by the action of the winds or the

eddies. "How long?" is a natural question. "I cannot tell, so mote I thrive." "Thousands of years?" We think so.

Our horses had not been ordered till an hour some time thence, and we had no reason to hasten to the other side of the river; so, lying down upon the then dry, sun-beaten rock, we reflected:

Here is a perpendicular cavity, say six feet deep, and perhaps two inches in diameter. The rock in which it is bored is of slate, but it is not of the softest. It has been bored by the working about by the water of this nodule of hard trap-rock at the bottom. Taking into consideration how very slight the movement—all the force being exerted from the surface—must have been, after the nodule had penetrated to the depth of a foot, we may say the nodule has sunk at the rate of one one-hundredth of an inch a year on the average. This would give seven thousand two hundred years it has been at work, say five thousand three hundred years before the Christian era. This device, then (with others similar to it), is probably the oldest machine on the face of the world. For over seven thousand years it has been slowly grinding, grinding, with no human hand to keep the mill in order.

When the Egyptian pyramids were built, four thousand years ago, this nodule was forty inches above its present level, and steadily at work. When Columbus discovered America, less than four hundred years ago (how short the time seems in the life of this machine!), the nodule was about four inches higher than it now is. It is at rest now, but the fall floods will start it again upon its almost endless work.

Shall we fish up this nodule, and stop its work? No, as soon mar the sphinx, or crush the Portland vase, as ruin this natural rock-mill of the Susquehanna.

We reached the farther bank, where Joe, the man-of-all-work of the tavern hard by, was waiting with our horses.

"Seen you looking at them holes in the rock, sir," said he.

"Yes. How did those holes come there, Joe?" said we.

"Don't know, sir; guess they was worms did 'em," was Joe's solution of the problem—"and thought the silvery moon . . . no bigger than his father's shield," says Pollok—"Sure's my life, sir, when I seen you staring at them rocks, I thought you was a little 'luny,'" said Joe; "but ye're all right, sir," added he.

If his candor was engaging, the last part of his remark was truly comforting.

Joe's naively-expressed remarks concerning the condition of our "upper works" reminds us of an incident. We knew, at one time, a Scotchman, B— by name, who was a miner. He had served his apprenticeship in the Cornwall mines; had become more experienced in an expedition he had joined to the deserts in the sandy country in the north of Africa, near Aden, where he went to bore artesian wells for the British Government; and had finally come to America, where we met, and subsequently employed him in his profession as a miner.

B— was one day "traveling" (as he

called walking over) the geological formations of the south part of Pennsylvania, when, one sunny and dusty afternoon in August, he came to a road near the little village of S— H—. With eyes intent upon matters of the earth, he noticed and picked up a stone upon the road, and, taking another unregarded stone, broke and examined what he had taken up.

Several times he repeated this process with other stones, when his attention was attracted by a scream from a woman close by a cottage at the bottom of the hill, which woman, stationed under the shade at her wash-tub, was calling to some of her progeny thereabouts, and huddling them into the house.

Having finished his examination of the stones, he proceeded down the hill; and, calling at the woman's house to get a drink of water, she appeared at an upper window—for the lower door was locked—and told him where to find the well-bucket. She seemed under some great terror, and he went his way.

Stopping at a tavern a mile off, he passed the night. The next day, going to the house of the farmer who owned the land on the top of the hill, he talked with him, and, after some few days' delay, obtained of him a lease of "all the iron and other ores found or that may be found in or upon" the land the farmer owned, "for ninety-nine years."

Engaging in the neighborhood a force of some twelve or fifteen working-men, he set them to digging and delving, throwing up masses of "brown hematite" iron-ore, and discovering in a few weeks' time a most valuable iron-mine. He sold his lease, within two months, to the proprietor of a neighboring iron-furnace, for five thousand dollars, cash down, having expended about three hundred dollars in "exploiting" the deposit.

[TO BE CONTINUED.]

ADRIFT ON AN ISLAND.

"IF there were any feeling for the romantic in this age, we should set out for a place like the Isles of Shoals on a raft!" exclaimed a certain fair idealist, "with Robinson Crusoe, or somebody like him, to act as pilot, and nothing to eat except what we could save from some wreck or other. Wouldn't it be fun?"

But how differently these things are managed! Here was the idealist, in company with an experienced traveler, and a well-packed trunk, embarked upon a perfectly business-like and very energetic-looking little steamer, which was bent upon making the transit in the most direct and practical manner possible. A flag, flying at the stern, which displayed, at such moments as the wind permitted it, the semblance of a dignified rooster, exactly expressed to our idealist's mind the vigorous insignificance of the pretty little craft in which she had taken passage. When the start was made, a great churning of water began behind the stern, followed by a brisk clink of machinery within, and a high-spirited quivering of the whole after-part, which would have been really impressive had it not been withal so unspeakably limited. To the surprise of her experienced companion, after

the first burst of longing dissatisfaction, and an invidious comparison of rooster and boat, the idealist apparently forgot every thing she had said, and proceeded to enjoy the trip to the utmost. But, upon reflection, he concluded that this was the best thing she could possibly have done.

There was a huge sunset over the water, as they drew away from the coast-line; and, the wind blowing somewhat freshly, they caught wild glimpses of it as they careered along up and down the furrowed sea. Afterward, they could only recall a vague spectacle of flame and flood, the one varied and reflected in the other, a rosy light in the sky giving a rare gleam of shimmering russet on the water. But an unusual degree of solemnity marked the descent of the tremendous red orb in the west; it seemed absolutely weighed down into extinction with pure splendor. There was, perhaps, a peculiar fitness in such a scene of closing day, coming as an introduction to a sojourn at the Shoals; for a shade of oblivion is always dropped, like night, between the main-land life and those who tarry there. Not, to be sure, that we are not the same, when hemmed in by the ocean within this little rocky realm, or that many features of our life do not persevere there as here. There is, it must be confessed, no especial local charm in the undeniable ship-coffee and amateurish ice-cream to which one may find himself treated in these miniature deserts. Nor can it be said that the chief waiter—who attached himself to us with an air at once deprecatory and commanding, on our entry into the dining-room, and, pulling out our chairs, leaned over them with a studied grace of invitation, mingled with a slight, inscrutable melancholy—was at all an exclusive product of this scanty, insular soil. And yet, nevertheless, there is an indubitable peculiar quality in the transient island-existence, difficult though it be to define, which seems to isolate us in an idle disregard of the accepted importances of life, as they appear at the other end of the nine miles separating us from the continent. I do not know that the state of mind one is apt to pass through, while there, can be better conveyed than by a comparison with the fluctuating uncertainty of vision, as we look, on different days, or even at different hours of the same day, from the Shoals to the main-land. The coast-line is apt to disappear from view on the smallest provocation; but also you sometimes awake in the morning with so clear an outlook across to the New-Hampshire beaches, and the quartz-like sparkle of houses along the shore at Kittery and Newcastle, that you begin to wonder, after all, whether your sense of islanded obscurity has not been a delusion. In short, you can never be quite sure of your actual relation to the main-land; and it is as if your sympathies with the life left behind were also tightened or relaxed at the whim of wind and weather. At the Shoals, we dwell in a region of mist and mirage and sudden change, speaking of sentiment as well as climate.

Moved by a sense of these things, the idealist insisted upon establishing an analogy between her position here and the taking passage on some great iron ship to cross the sea.

Although it was dark by the time she had landed, she ventured out a little way from the hotel, toward a rocky cove, where she heard the quick, hungry smacking of the waves as they bore down incessantly upon the island. When she promenaded up and down the long veranda, she was reminded of a tossing flush-deck, such as people walk to Europe on; and she felt an insatiable desire to man the yard-arms, or perform some other equally serviceable and appropriate naval feat. When she went to bed, she found her pillow redolent of sea-weed smell; and, being lulled to sleep by the flap and bluster of the waves, her last sensation was one of wonder as to where she should find herself in the morning. She felt that it would only be natural for the island to weigh anchor, during the night, and give all its population a little pleasure-trip along the coast.

Let no one, however, suppose that it is altogether an atmosphere of such fantasies, or even of uninterrupted, conscienceless contentment, which the wanderer breathes who finds himself cast away for a summer's holiday on these barren islands. Such is by no means the case. On a fair day, with quiet water, there is an abundance of amusement to be had, though all of a severely simple character. The popular brutality of fishing occupies a great many of the male visitors, and a graceful fever prevails among the ladies for collecting tiny mollusk-shells. There are no real beaches on the islands; but this makes the shells the higher prized. Laboriously collected on the one or two shelving slopes that take the place of beaches on Appledore and Londoner's Island, and properly bored and strung, these little fairy cups, with their fine gradations of green, and brown, and yellow, and soft, sunburned red, will make a necklace of great richness, as simple in material as it is fresh.

There are more subtle pleasures to be had here, however—pleasures lying on a higher intellectual plane, and requiring a sensitive appreciation in the wanderer before the full attainable enjoyment can be derived from them. One must learn to live to a great extent on light and color, feasting on the fleeting phases of sky and sea, and the sympathetic changes which fall thereby upon the little terrene mounds, hanging suspended, as it were, between the fluid air and ocean. The Shoals, somehow, appear to get nearer to the sun than most localities of this zone; not nearer to its heat (for they are always wind-cooled), but to its light. Their loneliness and their desolation seemed to have called forth from the great luminary a compensating bonus of warm radiance, that in a measure transfigures every thing about them. There, too, the wide, surrounding level of the sea assists the prominence of any upright object. Owing to these two causes, such objects start out upon the eye with such distinctness as to seem almost unique and unprecedented. Little sloops lying at anchor in the roads become so many streaks of brilliance; a foam-crowned reef is an oasis in the waste of waves; an island is a luminous land full of surprises in the forms and faces of its rocks, the subtle shadings of its monochrome color. The changeful tints of the water itself are mar-

velous. Lead gray, varied with purple and sad lilac, rose-tint, and olive, constituted the prevailing chord of color in it, while the idealist and her companion remained—I had almost said aboard of the islands. There was only one day when it appeared distinctly blue, though even then great beds and streaks of mullet-purple appeared inlaid in the azure. The experienced traveler had told his fair companion not to anticipate blue too eagerly; but she was, nevertheless, much relieved when it appeared, for she had previously been unable to free herself from a fear that the sea had not been doing quite its duty, in appearing under so many variable colors. But now she felt that it had redeemed itself, and she could return home with a quiet consciousness that the ocean might still be written and spoken of, in the rough, as simply blue. The idealist's appreciation of airy matters of this sort was great, and she found a hundred dainty enjoyments in the place which many of her fellow-boarders could not have suspected. She became responsive to the elements amid which she found herself, and caught a skill for deriving pleasure from the least circumstance. There was a dreamy sunset of pale gold one evening, and—would you believe it!—our friend was made completely happy by an irresponsible dog, who happened to stray out to a point where he could curl his unconscious tail against the background of saffron-colored sea.

But a fog or a wind a degree too stiff could unsettle all these visionary delights in a very short space of time. There could hardly be a place where one is more at the mercy of the locality, when there is any flaw in the weather, than at the Shoals.

We were entirely imprisoned at one time, during the stay of the fair idealist, by a boisterous breeze—surely the most open of jailers!—and a more unprofitable and disconsolate company of the same size than we made it would be difficult to find. The wildest species of excitement procurable was to roll at tenpins in the bowling-alley hard by the hotel. Those gentlemen, who cared to do so, would make a breezy plunge across the interspace, with trembling trousers, fluttering coat-skirts, their hats jammed closely down; and a prodigious crash of tenpins was kept up all day. New-York men were dejected.

"What's the latest news?" I inquired of one.

"I don't know," he said, "they haven't any papers." Then, after a pause, as if uncertain whether it were at all a necessary addition—"No New-York papers."

Boston men took the situation more calmly. But even they were subject to inequalities of mood.

"Pleasant, isn't it?" remarked one among them, cynically. "Began reading papers two days old, and now I've got down to a fortnight back."

There was also something pathetic in the spectacle of so large a number of ladies and gentlemen stranded on this distant island in the sea, away from home and friends, and all accustomed associations. In the history of the Isles of Shoals, two or three distinct populations, or, to speak with more license, civilizations, have been swept away from the

soil—not by the pressure of storms precisely, but yielding to a sort of fatality of barrenness ruling over the locality. One can hardly help wondering what will be the ultimate fate of the caravansaries which have now arisen in the stead of these settlements, for the housing of that fleeting community which yearly assembles there. Will they, too, in time be deserted, and their substance left to winds and waves to be dispersed? The presence of this crowd of pleasure-seekers is, in a certain light, a kind of impertinence; and it is easy to imagine that the inhospitable ocean will some time reward it with some savage act of resentment. Meantime, the mixed companies which assemble here for health or diversion furnish a curious and interesting assortment. You cannot help a secret, illogical query as to why any of them ever came out here in like manner with yourself; but, since so many have done so, you soon fall into association with and study of them. It would be a pleasure to introduce to the reader some among the most striking characters who fell under our notice while there. But it might be esteemed a disagreeable personality were any thing to be said in detail concerning the three maiden sisters, of amply discretionary age, who had come to the islands distinctly for the sea-air, and who kept their firm and prominent noses and sedate eyes always in the teeth of the wind, as it were, thereby mutely implying that they would mix in miserable frivolities with their draughts of health; though, indeed, they looked neither healthy nor happy. Nor would it, perhaps, be discreet to recall the foolish old lady who, on a day of settled drizzle, mustered her resolution and came out on the piazza for three minutes, where she carefully scrutinized the falling rain-drops through a pair of eye-glasses, and then retired to study anew a weekly paper full of fashion-plates.

And, besides, there yet remains to be told the tale of a brief cruise around the group, in a dapper little sail-boat. It is only by some such excursion that one can get a comprehensive grasp of the islands, so as to fit them together again in his memory with that strange, silent unity which is really theirs. And yet, too, it makes them seem more visionary and impermanent than ever, to see them thus from the deck of a flying yacht. Their continual shifting of position, not only in relation one to another, but as measured from us who sail, presents them in successively new aspects that are sometimes not a little mystifying for the moment.

"What island is that?" the ladies were continually asking, as we headed toward or away from a particular one, in boating and tacking around it.

A rain-storm descended upon us during the brief circular voyage, and lent the additional uncertainty of its gloomy clouds and silver mist to that of our changeful progress. At about the same time, as we afterward learned, a part of the same storm swept the sea along the Nova-Scotian coast with such violence that a large number of fishing-vessels were lost, with many sailors. But it only served at the moment to give us a pleasantly weather-beaten feeling, quite accordant with our character of amateur mariners. In

the mean time we swept on by Appledore, with its high, green back; along the shore of Smutty Nose, low, irregular, and heaped with tottering blocks of rocks; and so beyond the high, wild side of Star, and around between the latter and White Island, with its threatening cliff and lone, white light-house. The water was low, and all the hidden apparatus of the rocks for trapping vessels lay bare and horrid before us. It was easy to imagine how these strange sisters might play with puzzled sailors in foggy or wintry weather, and out of sheer deviltry, as it were, change places in and out, until the poor fellows should run their craft full on the granite sides, or lay it across one of those ledges that run out here and there, invisible at high water, like murderous razor-blades.

But it is not to be inferred, from what has just been said, that these islands are wanting in distinct individuality. On the contrary, it is remarkable how a little family of them so entirely isolated from the rest of the world, so confined to each other's society as they have been, should have managed to grow up with such marked differences of character as to exterior. It is not difficult even to distinguish differences in the ordinary breathing-air of each; and adepts become fastidious. Hitherto, Appledore has been the only resort of tourists; but Star Island has now, also, been made the foundation for a new and ample hotel. It does not, however, follow that, because one island has been popular and pleasant, we can be just as happy on another. One has to make an intimate companion of what land there is here; and it becomes necessary, therefore, to choose his earthly associate for the summer with care. If a man have already accommodated himself to one of the group, it is a question whether he will accomplish a change of faith with entire ease. So that it is likely an active partisanship will come to prevail among those who shall frequent the group. Foreseeing this, we wisely took occasion, after a stay on Star Island, to transfer our quarters to Appledore, and thus to arm ourselves with a double weapon for possible disputations hereafter. Nor did we run any risk of imbibing too strongly the local prejudices of either, by staying long enough to succumb to that dreamy spell which settles on all who linger beyond the period of the novitiate in this unique atmosphere.

As for the fair idealist, she was so charmed by the light of a certain fire of drift-wood in the room of a friend, that she passionately declared she must stay throughout the remainder of the summer at Appledore. This fire was originally, to speak in a figure, kindled by a spark from the old light-house which stood about where the present tower rises, on White Island, and by the hands of one who, in her childhood, lived in the same house, and on familiar terms with the charitable luminary yonder. But the beacon-light has transmitted to this blaze only the happier meaning that abides in fire. This mild flame warns off no seafarer from rocky dangers, but chirps and crackles a wholesome invitation to all lovers of the beautiful, all reverencers of art and poetry, who will come hither and rest a little beside the modest hearth,

basking in the drowsy and delicious firelight. What a varied significance, indeed, a flame can have! The ray from the light-house is lonely, and fraught with pensive and melancholy suggestion; the crisp flight of fire from this burning heap of drift-wood is warm and human and welcoming. And, since she who presides over it is herself a poetess also, it possesses something more than this property of mere physical comfort, being doubtless quickened in its shining by a gleam of that rare light which, we have hitherto been well assured, never was on sea or land. But here at last it flashes out over both!

It is strange that any one, who heard the idealist's rhapsodies, as she dwelt on the topic of this fire, with perhaps something of its ruddy warmth still lingering on her cheek, and that happy earnestness of eye that so peculiarly belongs to her, should not have allowed himself to be melted into compliance with even her most impracticable wish. But no visionary light could mislead our experienced traveler. To her enthusiasms he opposed the immitigable facts of the calendar and time-tables, and he conquered. Moreover, not content with this triumph, he uttered a malignant exclamation concerning the Shoals.

"I am tired of the place!" he said.

But our fair friend consoled herself with the reflection that he was unworthy of this rocky paradise.

"Never mind!" she retorted. "Next summer we shall see—"

And the tyrant at her feet quailed under the prophetic glance with which she completed her sentence. Be warned, O men of experience! Go not hither to those scant sea-gardens, unless ye are prepared again to become as little children, or as idealists, who alone can see the transformations they have faith to expect. Otherwise, you will be but ill content there. And, having once gone, Fate will doubtless compel you, happy or unhappy, to go again.

G. P. LATHROP.

THE LONDON POST-OFFICES, NEW AND OLD.

WE ought certainly to take some little interest in the internal working of the London General Post-Office, for it seems that the postal department of Great Britain has larger transactions with the United States than with any other country in the world. According to the last report of the Postmaster-General, recently presented to Parliament during the year 1871 (the last date to which the foreign packet-service accounts have been made up), no fewer than 8,582,000 letters, to say nothing of newspapers and other packages, passed between the two countries; and, of foreign money-order business, the greatest amount by far was transacted with the United States, whence last year 60,000 orders, amounting to rather more than \$1,075,000, were sent to London, the post-office there sending back to us in return 9,000 orders, amounting to a trifle over \$180,000. With these figures before us, it is fair to presume that a few facts concerning the post-

office in St. Martin's-le-Grand will prove not uninteresting to the general reader, and especially at this particular time, when the government is about completing the new edifice which, with the old post-office building opposite, familiar, no doubt, to all Americans who have visited the English capital, will by-and-by constitute one of the most marvelous establishments in London.

This new structure stands at the corner of Newgate Street, turning off into St. Martin's-le-Grand, and may be briefly described as a building two hundred and eighty-six feet long, one hundred and forty-four feet deep, five stories in height, and comprising altogether about two hundred rooms. The acquisition of the telegraphs by the state, rendered it necessary to modify the original arrangements by which the new building was to be an enlargement of the postal department alone, and the most interesting feature of this new establishment will be that it will represent, as it were, the brain of that immense system of nerves ramifying throughout the length and breadth of the United Kingdom. The new structure, composite as to architecture, is built of Portland-stone, and is at once simple and majestic; indeed, with the two exceptions of Somerset House and the Foreign Offices, as a public building it will stand unrivaled in London. The main entrance, in the centre, conducts into a handsome hall, originally, we believe, designed for the public, but which, owing to the enormous increase of business, brought about by the transfer of the telegraphs, is now to be used as a clerks' room. Immediately below this hall is the room to be set apart for the batteries, by which will be generated the electricity which is henceforth to play so important a part in the business affairs of Great Britain. In a small quadrangle below the entrance-hall, on the left-hand side, are four boilers, each twenty-one feet long, and six and a half feet in diameter, connected with engines of fifty nominal horse-power in an opposite quadrangle, intended to work that excellent (and in this case) improved system of pneumatic tubes, which have been found to answer so well in distributing messages to various parts of London. A noteworthy feature of this boiler-room is a chimney-stack, towering to the height of one hundred and thirty feet, and declared by competent authority to be one of the finest bits of workmanship of the kind to be found in London. There is also an artesian well in this portion of the building, running down to a depth of four hundred feet, and calculated to yield one million gallons of water daily, to supply numerous hydrants scattered over the establishment, as well as the boilers already mentioned. The water is to be lifted by two twelve-horse-power engines, which are also to be employed in working a very ingenious system of mechanical stoking, designed to supply a given quantity of coal to the furnaces, so that there shall be as slight emission of smoke as possible, and to work with scarcely any perceptible noise.

Perhaps the reader, though understanding something of pneumatics, may not readily see the way in which the pneumatic-dispatch system, which we have above alluded to, is worked, and, as it really is a very

noteworthy element in the elaborate and admirable postal service of London, we will endeavor to explain it: A number of little tubes, with an internal diameter of some two or three inches, are laid from the pneumatic communication-room (also the telegraph-room) to Fenchurch Street, whence they extend, in different directions, as far as Charing Cross. The butt-ends of these tubes, which are to be seen against the wall opposite to the desk of the attendant, who ministers to them, are connected with other smaller pipes soldered on at right angles, which lead down to air-pumps below, worked by the two twelve-horse-power engines, each so constructed, it may be mentioned, as to be converted from a pressure to a vacuum engine at pleasure. There are other air-pumps and engines, of course, at the other ends of the pipes, and thus suction is established to and fro through the whole system of tubes. A whistle warns when a dispatch is about to be put into one or other of the tubes at the other end. It becomes necessary, of course, to exhaust the air between the post-office end and the point whence the message is to come. A little trap-door—the mouth of the apparatus—is instantly closed, a cock is turned, the air-pumps work below, and almost immediately a slight tap, like the noise of a pea covered with flannel, is heard against the door, which, on being opened, allows of a cylinder of gutta-percha, encased in flannel, being thrown from the tube on to the attendant's desk below. This cylinder, which is about four inches long, opening at one end, contains the message. So convenient has this means of communication been found, that it is not only peculiar to London, but is now at work in Glasgow, Dublin, Liverpool, Birmingham, and Manchester. One feature, however, of the St. Martin's-Le-Grand system is, that two of the gutta-percha cases containing messages may be dispatched to the same station nearly at the same time, it being hitherto necessary to wait until the first had completed the journey before starting the second.

The floors of the new building are reached by broad and grand stone staircases, over each of which is an exceedingly handsome lantern, designed not only to provide light, but to afford complete ventilation to the whole building. On the upper floor of all is the telegraph, and, as has been mentioned, the pneumatic-tube room. This apartment, which will now form the centre of the telegraphic business of Great Britain, contains twenty thousand superficial feet of space, and is fitted up with about three-quarters of a mile of mahogany tables, to be presided over in a few weeks by that army of clerks, male and female, amounting to fifteen hundred in all, superintended by Mr. Scudamore, director of the telegraphs. It would be difficult, nay, impossible, to find a government establishment more complete in detail than this new post-office in London; and, having said this much for the child, we will now say what we have got to say about the parent establishment, now forty-four years old, and which began to shadow forth its present greatness about the year 1842.

The postal department of Great Britain furnishes almost the only example of a gov-

ernment trading-establishment conducted perhaps better than it could be conducted under any possible combination of private enterprise, and producing a large yearly profit which exhibits a steady increase. This profit, after paying in round numbers \$13,773,820 for cost of management, amounted, in 1872, to \$12,270,790, the equivalent of which, in pounds sterling, was paid into the exchequer, in relief of the taxation of the nation. This revenue was obtained from receiving and delivering about 870,000,000 letters, and an aggregate of about 272,000,000 newspapers, post-cards, and book-packages; from postage on foreign and colonial letters, an unimportant item; and from commission on issuing £24,000,000 sterling in money-orders for the United Kingdom alone. This latter department, which, in its operations, much resembles banking, is not a portion of the postal system properly so called, and is conducted in a distinct building. It may be well to mention here that the London Money-Order Office has grown enormously within the last few years, and has, in fact, to a very large extent, superseded the system of bank drafts, to be attributed mainly to the absence of any complicated machinery, or apparently needless restrictions in the mode of obtaining payment upon an order, in respect of which, and especially in the case of foreign orders, the London system will bear favorable comparison with our own. Great delay constantly occurs in paying an order on one of our offices sent from London to the oftentimes considerable inconvenience of the payer; and it might be well for persons to understand that the foreign money-order system, as at present conducted between the two countries, is by no means so satisfactory as it might be, and that the old system of buying a banker's draft is the best, which the writer, who speaks from experience, takes leave to advise being done in all cases where delay in the payment of transmitted money is of consequence.

It is natural to suppose that, with the enormous number of letters and newspapers daily passing through the London head post-office, all the machinery by which it is carried on must work with perfect smoothness and ease, otherwise the whole correspondence of the country would be thrown into the most inextricable confusion. Nearly thirty-five hundred men are employed in conducting the duties of this one office, out of nine thousand for the whole of London. To the sorting-rooms in St. Martin's-le-Grand are brought each day the entire correspondence of the metropolis, and of the country districts around that has to be passed through London, in addition to all letters posted in what is called the central district, or city proper, for metropolitan delivery. London, for postal purposes, is divided into nine districts—East Central, West Central, Western, Southwestern, and so on—and, of the letters sent into the head office daily, only those which belong to the E. C. (East Central) district, in which the General Post-Office is situated, are actually delivered from it, the letters for all the other metropolitan districts being forwarded to them in bags, each postal division being considered as a post-town, sorting and delivering its own

correspondence, and interchanging bags one with another. This distribution of the letter sorting and delivery of course materially relieves the head office; but the vast yearly increase of the general letters for the provinces bids fair to make up for this apparent diminution of work; it being well to mention that the total number of postal receptacles in the United Kingdom, including head offices and road letter-boxes, are 20,600, while London possesses more than fifteen hundred of such receptacles. The speed with which the operation of sorting is carried on at the head office is something extraordinary; the long rows of pigeon-holes over the long tables, at which the sorters (mostly lads) stand, are filled with incredible rapidity. After the sorting comes the stamping, which is conducted by men specially appointed, to each of whom a fresh stamp is issued before commencing work. This is presumed to furnish a check against pilfering from letters, for, as every man signs for his stamp, a letter will show at a glance through whose hands it passes previously to delivery. The Postmaster-General, however, in his last report, directs special attention to the temptations to which letter-sorters and carriers are exposed through the carelessness of the public, who oftentimes neglect to register, and who fold their letters so as to make their contents quite evident. He mentions a singular instance of heedlessness. "Of all cases that have come before me," he writes, "one of the most surprising relates to what is generally regarded as an exemplar of caution and prudence, viz., a Scotch bank, from which an unregistered letter was lately sent, containing an uncrossed check" (answering to our check payable to bearer) "for five hundred pounds, which was stolen and quickly cashed." But the most extraordinary evidence of want of care on the part of the public comes from the London Dead-Letter Office returns, which show that 3,600,000 letters found their way there to be reissued to corrected addresses, or to be returned to the senders, and that of this number 83,000 contained property of different kinds—coin, bank-notes, jewelry, lace, etc., a fair proportion of such letters being posted without any address at all. No less than twenty-seven hundred "valuable books," which, owing to careless packing or weak envelopes, escaped from their covers, have been recorded in the office during 1873, so as to allow of their being traced if inquired for. Six hundred thousand newspapers, posted for transmission abroad, never reached their destinations, owing to careless payment of postage—the disappointment this must have caused to far-distant friends and correspondents being, no doubt, very great. And, to wind up a tolerably long list of careless habits on the part of the generally prudent British public, involving great trouble to the London Post-Office officials, it may be mentioned that newspapers are so badly folded that letters are constantly being dispatched, hidden in the folds, to all sorts of places where they ought not to go; and that valuable letters to tropical climates are so invariably sealed with wax, which won't stand tropical heat, that what wonder they get stuck to other and bigger letters, and get carried no one knows whither. Three

clerks are daily exclusively employed in endeavoring to restore wrappers that have come off newspapers, while a perfect corps of what are termed "blind men" are kept for the sole purpose of deciphering illegible and imperfect addresses. An immense number of letters reach the office, in the course of a week, with directions perfectly unreadable to ordinary persons, but which are carefully spelled out by the "blind men," so as to ultimately reach their several destinations. Of the 3,600,000 letters sent to the Returned-Letter Office, upwards of eleven-twelfths, or rather more than 3,000,000, were ultimately delivered, which speaks well for the care and zeal displayed by the officials of the London Post-Office. While upon this subject of incorrect and deficient addresses, it would be well to state that the Postmaster-General mentions the fact of there always being nearly two hundred orders from the United States lying at the chief office in St. Martin's-le-Grand awaiting application, owing to the inability of the department to trace out the intended recipients. Similarly, no end of orders sent to the United States have failed to reach their several destinations, from careless addressing. In illustration of the amount of business at the chief Money-Order Office in London, and of the celerity with which much of it is performed, we may state that, at this office, about 13,000 accounts, with an average of more than 200,000 documents (consisting of money-orders, advices, and other vouchers), are received every morning; and that all these papers are sorted and arranged so as to be ready to be dealt with by the examining officers before 9 A. M.

We cannot, within the limits of this article, do more than refer very briefly to the many new departments which have of late years been created and placed under the control of the London Postal Department. The Post-Office savings-banks, with ramifications throughout the country, and with a receiving-house in the large percentage of its post-offices, has become a vast establishment in itself, and is every year increasing. Last year the number of depositors was upward of 1,440,000, owning £19,000,000 between them, which produced interest to the amount of £430,000. As an evidence of the successful working of these banks, we may mention that the cost to the post-office of each transaction in savings-bank business, that is, of each separate deposit or withdrawal (including postage) is about sixpence, as compared with about one shilling under the old savings-bank system. The Postmaster-General has likewise under his control the Government Insurances and Annuities Office, a new undertaking for enabling poor persons to insure their lives for sums of not more than £100 at reasonable rates below the other insurance-offices. This scheme appears to have proved fairly successful also; the office, which has only been started about four years, holding 3,300 policies, representing £250,000. It may be of interest to some of the readers of this JOURNAL to learn what an English minister has to say upon the subject of the employment of women. Mr. Mansell thus records his convictions on the great question of "women's rights": "It is with pleasure that

I have given my approval to the measures that have been proposed for increasing the employment of women in the post-office; the first great step in that direction having been taken by my predecessor, Lord Hartington, in relation to the telegraphs. How much remains to be done toward removing those artificial barriers which have hitherto shut out women from lucrative employment may be gathered from the fact that, on a late occasion, when it was announced, by advertisement, that there were twelve vacancies for junior counter-women, at wages from fourteen to seventeen shillings a week, more than twelve hundred candidates presented themselves; the very thoroughfare, as I am informed, in the neighborhood of the office of the Civil Service Commissioners in Cannon Row having been, for a time, blocked up."

It is gratifying to find that the employment of women is steadily on the increase in this department, and that the system is found to work well.

CHARLES E. PASCOE.

AFTERMATH.

TO H. W. L.

IN the slant September sun,
Gilding still the sturdy gowan,
Ere the summer's work is done—
Cuts the thrifty scythe the rowen.

Scant the second harvest falls
To the mower's listless awing,
Hushed the merry madrigals
Of his happy summer singing.

From the meadow, from the hill—
Gone the fragrance, gone the greenness,
From the mower's heart the will,
From his blade the summer's keenness.

Gone the singers overhead,
From the tender maples chanting,
And the sweetness falleth dead,
All the zest of hay-time wanting.

Men the aftermath should mow—
Less to swell their harvest-gordon,
Than to lay the rank growth low,
Lifting from the soil its burden.

Happy reaper, in the sun,
Of your fame supreme and golden—
Ah! not that your work is done,
Nor its summer strength withdrawn.

While, from all the fields of Rhyne,
Sheaves of sweetness still you bring us,
Say not the sad autumn-time
Tunes the later songs you sing us.

At your "way-side inn" you rest,
Not as one that gleams the rowings,
Stalwart still with heaving breast—
Heaving for the morrow's mowings.

O brave toiler, you have swept
Your keen blade in many meadows,
We have smiled, and we have wept—
In their sun, and in their shadows.

Call this harvest, if you will,
"Aftermath," but keep on mowing;
There are tender grasses still,
All along the way you're going.

Sharp your scythe and strong your arm—
Stay them not 'mid Life's sweet clovers;
Still your songs hold summer's charm—
Gladdening your and Nature's lovers.

W. C. RICHARDS.

THE CERAMIC ART.

I.—TERRA-COTTA.

ALL the great nations of antiquity have left abundant evidence of an acquaintance with the art of fashioning clay into vessels and ornaments. This knowledge was not limited to the more highly-civilized peoples, but indeed appears to have been common property with even the rudest of the ancients.

In the earliest days of the art, the kiln or potter's oven was unknown, and such baking as could be had by exposure to the rays of the sun was the only process by which the primitive workman could add to the hardness of his wares. Of the pottery made in this manner we have most interesting relics in the sun-dried bricks of Egypt, Assyria, and Babylon. These earliest specimens of the ceramic art possess a double interest, as, to use the language of Mr. Birch, "They not only afford testimony to the truth of Scripture by their composition of straw and clay, but also, by the hieroglyphs impressed upon them, transmit the names of a series of kings, and testify the existence of edifices, all knowledge of which, except for these relics, would have utterly perished. Those of Assyria and Babylon, in addition to the same information, have, by their cuneiform inscriptions, which mention the localities of the edifices for which they were made, afforded the means of tracing the sites of ancient Mesopotamia and Assyria with an accuracy unattainable by any other means."

A few other sun-dried articles besides



Ancient Gallic Pottery.

bricks have been preserved; very few, however. To the invention of baking, or "firing," we owe the existence of most of the relics of ancient ceramic art.

The name of *terra-cotta* (literally, baked clay), although of a wider significance, usually includes only such earthen-wares as are devoid of glazing or enamel. Clay tempered with water, and baked in this natural state, shows a dull or lustreless surface. Enameling was another step in the art, and glazed

pottery is sufficiently distinct from *terra-cotta* to be treated of in a separate article.

Among the earliest kiln-baked *terra-cottas* that claim our notice, are the later bricks of Assyria and Babylon. These, like their more primitive predecessors, often derive an additional interest from cuneiform inscriptions. A specimen of these bricks is shown in an accompanying illustration.

The inscription, as translated by Sir H. Rawlinson, reads:



Figures from a Babylonian Frieze.
(Cassini Collection.)

"[of] Nebuchadnezzar
the king of Babylon
founder of Beth Diga or Saggala
and of Beth Tzida
Son of Nebopalsae [I am]"

Probably a little later came the making of the earthen tablets, which have lately attracted so much attention. The excavations at Nineveh, by Layard and others, brought to light many of these strange books; in fact, a whole library printed on pottery. These volumes (so to speak) were found in the palace of King Assurbanipal, who reigned about six hundred and sixty years before the Christian era. A large quantity of these tablets, some whole, or nearly so, and others in small fragments, were removed to the British Museum, where Mr. George Smith, an adept in deciphering the cuneiform inscriptions, undertook the translation of the puzzling, crowded pages. For fourteen years Mr. Smith toiled over his amazingly difficult work, and now we have as the result a rendering into English of some twelve tablets, which contain the legends of King Izdubar and of Sais, who corresponds to the Noah of the Bible. From Sais the king has the story of a flood and the building of an ark, which corresponds in many particulars to the narrative of the Scriptures. The particulars of this story have so recently been given in full in many of the religious and other newspapers, that it is unnecessary to reproduce it here.

Although bricks and tiles are the most simple in form, it is not certain whether rude cups and similar vessels do not antedate them. Necessity, the mother of invention, would seem to have suggested the latter use for clay as soon as its adaptability to such a purpose was at all thought of.

Whatever ideas of art were developed in

the ancients, soon made an impress on their works in *terra-cotta*. The desire for ornament, innate even with the savage, ultimated itself in rude decorations on his pottery, and the cultivated Greek not only shaped vases which are at once the pride and envy of all potters of modern times, but pressed the ceramic art into the representation of bas-relief, bust, and statue. A Greek tradition says that Debutades, a potter of Sicily, was the first who attempted to shape images out

of the earth, from which he made his pots, and this by means of a daughter of his, who, being in love with a youth, drew, with a coal, his profile on the wall from the shadow cast by a lamp, that she might be able to look on his features while he was absent from her. Seeing this, the father filled up the outlines with clay, and finding that he had by this means produced a sort of model of the youth's face, he put it to bake with his pots.

We must look beyond the Greeks, however, for the first attempts at such modeling, for im-

ages of divinities in earth, dried or baked, are found all over the globe, and in the oldest of the Egyptian tombs. Like the art of pottery itself, no one people can claim precedence in the invention of modeling in earth. An artist in earthen-works is mentioned in a Sanscrit poem, that dates far before the time assigned to Debutades. It is said of the hero of this poem—the son of a deposed king—that "he still possesses excellent horses, and loves them so well that he fashions them out of clay."

It is also claimed that the Greeks invented the art of moulding, that is to say, of producing any number of copies from an original,



Gallic Pottery.
(Found in the Vaucluse.)

by pressing soft clay into a properly-finished mould. The inscriptions on the Babylonian and other ancient bricks were doubtless made in this way, or, rather, the entire brick was formed by pressure in a wooden or *terra-cotta* mould, on the sides of which, of course, the desired letters were cut so as to leave their impress on the plastic clay. The discovery of moulding did much to multiply the works of the potter, and, had it not been for the facilities of reproduction thus offered, many

fine pieces of ancient ceramic art would doubt have been lost to the modern world.

The ancient sculptures in *terra-cotta* sometimes show the same refinement and love for art that is so unmistakably evidenced in the antique marbles, and they are sometimes curious, and no less interesting, as illustrations of the customs of antiquity. Of this latter class, an interesting specimen is described by M. Burty in his "Chefs-d'Œuvre de l'Industrie des Arts." In speaking of the Louvre collection, he says: "The most important object is a tomb said to be Lydian, which was found intact in Etruria; two personages, a husband and wife, are extended upon it in a recumbent position, leaning on their elbows; their crooked, turned-up chins, prominent cheek-bones, Chinese eyes, head-gear, and pointed slippers, denote an Oriental origin, which the learned have not yet been able to define precisely. On other sarcophagi, of a much later date, we also find couples or isolated figures reposing, not like our seigneurs of the middle ages, reposing in sleep, with clasped hands and stretched-out legs, but leaning on the elbow, as though death were an invitation to a funeral repast or philosophic conversation. The greater part of these are of trivial workmanship: the neck is detached, showing that the potters had ready-made bodies on hand, and that the relatives of the deceased must have hastened to the workshop, in the last moment, to order a head resembling more or less that of the departed.

"Much more interesting than these funeral figures," continues M. Burty, "are the antiques and bass-reliefs which were displayed in friezes along the façades of the Roman houses. It will be observed that the same subject was frequently repeated. The Curetes, clashing their bucklers to drown the cries of the infant Bacchus; naked and muscular vintagers treading, in time, to some song, the grapes in the wine-press; two young satyrs, standing on tiptoe to reach the vase of a fountain too high for their lips; or the combat of Apollo and Hercules disputing for the prophetic tripod of Delphi; Hercules discovering the infant Telephus, suckled by a goat in a grotto overshadowed by a tree; or, further on, bearing a bull on his shoulder and followed by Autumnus, or taming the bull of Marathon; the marriage of Thetis and Peleus, a scene of touching chastity and grandeur; or, again, Theseus discovering his father's armor under a stone.

"Sometimes the treatment of the subject rises into the highest emotional expression, and the face and figure of Helen, driving, with her own hand, the car in which she returns with Menelaus to her palace, expresses a profound discouragement. A Penthesilea, who falls dying into the arms of an Achilles filled with compassion, is also one of the most affecting of the subjects. We have already called attention to the frequent repetition of the same subject. It is in such repetition that the genius of the artists who modeled these bass-reliefs for so modest an

employment is most strikingly evinced. In every case the scene is slightly modified, the muscular detail changed, the gesture sharpened or softened, the expression aimed at



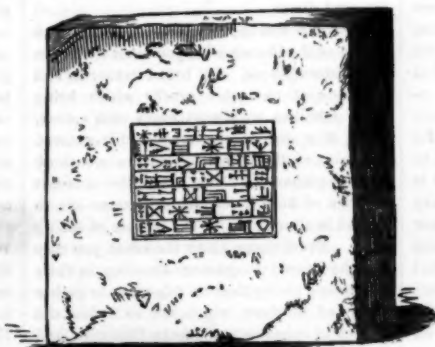
Ornament of a Roman House.
(Compass Collection.)

more tender or more haughty. They are so many editions of the same text, revised and corrected by ingenious editors."

Some idea of these bass-reliefs may be gained from the figures we give from "A Bacchanal Frieze," and the richness of the decorative work is well illustrated in the "Ornament of a Roman House."

Of modern *terra-cottas* there is little to be said. The last century brought forth a few works, but the art now languishes, with little hope of revival.

As we shall treat separately of the application of enamel, and of vases and other forms of pottery, which are the more



Babylonian Brick.
(Royal Society of Literature.)

customary products of the art, this article will be sufficiently completed by a notice of the fundamental processes of working and baking clay, as now practised.

The essential ingredients in every kind of clay, and, as a consequence, in every kind of pottery, are silica and alumina. This compound, by exposure to a high temperature, acquires the requisite hardness and density, which qualities are modified by differences in treatment.

Pure clay, as every one knows, when tempered with water, forms a very plastic mass. This quality admirably adapts it for the shaping of vessels, but at the same time occasions inconvenience when the ware is to be baked. The clay suffers such contraction in "firing," that small or thin vessels are liable to crack or suffer distortion. This tendency is corrected by adding to the clay a proportion of some non-plastic material. This material is usually flint; the clay thus receives an addition of silica, the proportion being regulated according to the judgment of the manufacturer.

The first operation with the clay is *blunging*, or, perhaps, more properly *plunging*. This consists merely in thoroughly incorporating a certain quantity of water with it, the mixture being violently stirred until a smooth pulp is obtained.

The first operation with the flints is to heat them in a kiln for about thirty hours. They are then either quenched in cold water or suffered to cool slowly. This heating, whichever way terminated, results in increasing the brittleness of the flints. They are next reduced to small pieces by a powerful stamping or crushing machine. These pieces are then ground in a mill, called the *flint-pan*. This mill is a circular vat, paved with quartz, and containing *runners*, or blocks of very hard stone, which are driven round by the arms of a central shaft. The flints, being placed in this mill with a certain quantity of water, are easily reduced to a smooth, creamy liquid.

The clay pulp and the prepared flints are now united by agitation, and by being passed through a series of sieves, the mixture being then called *slip*. This slip is heated in large troughs, or tanks, until the greater part of the water is evaporated, and the mass thus becomes firm enough to be worked.

The mixture of clay and flints, having been thus prepared, is shaped by *throwing*, *pressing*, or *casting*. The thrower makes circular work only, and does it on that most ancient contrivance, the potter's wheel. This wheel is an upright shaft, on the upper end of which is a disk, as large as the bottom of the largest vessel to be made. On this disk the thrower places a lump of clay, which, adhering thereto, is fashioned by his hands into cup, jar, vase, and the like, as the wheel revolves. The thrower's work is completed by *turning*, which is partly a repetition of the first process, and consists in cutting away the inequalities in the surface in the same fashion as in the turning of the wood or metal in a lathe, the vessel, however, being kept upright and the cutting tools applied perpendicularly.

In *pressing*, the clay is forced into a mould which gives it the desired shape, and in *cast-*

ing, which is employed for more delicate articles, the slip is poured into a plaster mould, which, quickly absorbing the water, leaves, by proper manipulation, a hollow shell that is then filled with more solid clay.

The ornaments, handles, etc., which are affixed to thrown or turned ware, are necessarily pressed or cast, and are then united by simple pressure, while both parts of the article are yet moist and plastic.

The ware, once in the desired shape, is dried by a gentle heat until firm, and then "fired" or baked in a kiln, the formation, arrangement, and temperature of which depend upon the nature of the pottery itself.

In the making of bricks and the coarser kinds of tiles and earthen-ware, the clay is used in its ordinary state; no flints are added, and mere grinding with water to a moderately smooth, dough-like mass, is substituted for blunging; and the subsequent operations that are required in the finer branches of the art are omitted.

ON THE CHESAPEAKE.

THE stranger who leaves Baltimore on one of the comfortable steamers of the Old Bay Line for Norfolk, has a charming trip before him, especially if he chance upon a mild and clear afternoon in the early autumn. If he possesses a *lorgnette*, however small, by all means let him have it in his pocket; but, if not, the next best thing is to discreetly cultivate the occupant of the pilot-house (by entertaining remarks which require no answer), in order that the captain's "binocular" may be at his disposal. He will find the glass an unfailing source of pleasure, not only in making out the various craft which are constantly in view, but in watching the movements of the numbers of water-fowl and other birds which skim the dancing wavelets, or float in buoyant repose upon the swelling bosom of the bay. Now, kind reader, if this latter use of the instrument would give you no amusement, you had best go into the cabin at once and study character among your fellow-passengers, or quicken the dragging hours with the pages of some novel or newspaper, for it is with these same water-fowl and the pleasures and difficulties of their capture that we shall be chiefly occupied in this brief article.

I have only taken the boat with you for an hour or two on her downward trip, to show you a few points on shore, which it is necessary for you to observe so that you may be familiar with the ground. We are now leaving the mouth of the Patapsco. Those two light-houses which we have just passed on the left mark the historic North Point. We should turn there, were our course up the bay, and soon pass the mouth of Back River, the winter feeding-ground of thousands of ducks, geese, and swans. But we are going down, and, if you look across from the light-houses, you will see Swan Point. ("Port side! Right abeam!" suggests a voice from the pilot-house.) That is the Eastern Shore, and we are coasting the southern part of the fertile and highly-cultivated county of Kent. That is a famous sitting-place for swans. One

old bird, known to all the gunners of that neighborhood by his peculiar voice, is said to have visited those flats regularly for over sixty years. Over there on the right ("Two points on the starboard bow!" comes again from the gruff voice at the wheel), you see the light-station on the Seven-foot Knoll, and just to the left of it those distant trees are back of Love Point, the northern extremity of Kent Island, where the famous "Claiborne Settlement" was made, in the earliest days of the colony. It is rough here, with a chopping sea, for we are off the mouth of Chester River. Now, you observe, we are passing the Knoll, having borne off to the westward so as to leave it on our left. Were we to turn in now, we should pass into the river, with Hale's Point (vernacular, "Hell P'int") on the left. That is the southern point of Eastern Neck Island, the extremity of Kent County, and there is no better shooting-ground in the world for swans. We shall see more of it by-and-by.

Now, let the good steamer take her course toward Old Point, while we, having learned our geography lesson, will go ashore and settle down to our proper subject-matter. But stop a moment! Turn your glass on that dark object in the water just ahead of us. That is the loon, or northern diver, which arrives among the earliest from the breeding-grounds of the north. As the light falls on him, your glass shows the beautiful changeable blue of his head and neck, and the mottled gray on his back. See how he slowly sinks like a frog in the water! Now he is gone, and you may look for him again almost out of sight in the most improbable direction, for he is a most powerful swimmer under water, and seems to need air almost as little as a porpoise. He is shy, too, although nobody wants his huge, fishy body. There he is again, away over yonder! There! he's gone like a flash, head-foremost this time, frightened by the whistle, which made us jump with its unexpected salute to that passing boat. Should you often sail these waters, your glass would soon make you familiar with him, as well as with his less common cousins, the black-throated and red-throated divers.

To know and appreciate the pleasures and profits of the Chesapeake, you must live upon the Eastern Shore. Its broad estuaries and hundreds of navigable creeks which bring water facilities to almost every man's door, make this one of the most nobly-watered countries on the globe. From the mouth of the Susquehanna to the ocean the choicest luxuries of both fresh and salt water are to be had in abundance for the trouble of taking them. Everywhere along the coast you may see the sturdy tongs-men standing in their canoes and plying their double-rakes to gather the juicy bivalves, which are to tickle the palates of epicures not only in Baltimore and New York, but in Liverpool and London. Here is the favored home of the famous soft-crab and the diamond-back terrapin. Rock or striped bass, shad, herring, spots, hog-fish, taylors, and the delicious bay-mackerel, afford constant occupation, to hardy seine-haulers and skillful anglers, from early spring until Winter lays his icy grasp upon the bay. The life of these amphibious laborers is one

of hardship not unmingled with peril. Only quite recently, while one of them was wading in Chester River with the end of the seine, a shark rushed on him, and seized his right leg just below the knee, crushing the bones and horribly mangle the limb, which had to be amputated. They are a peculiar people, these Chesapeake fishermen. I know one who manages to occupy all his time by the combination of three distinct callings, discreetly varied according to days and seasons. While the fish are running, he occupies a shanty on the shore—except when he is up to the waist in water, which is four hours out of every five. Through the rest of the year he "follows" carpentering, while his Sundays are faithfully given to the loudest kind of preaching. I greatly fear, however, that his brother-fishermen, as a rule, have too much of his company during the week to form part of his congregation—or of anybody else's, for that matter—on Sunday. We must leave them and their nets, however: they present much, indeed, that is of interest, but very little that is specially so, for our consideration, the incidents and details of the fisher's craft being much the same the world over.

It is early winter. The diamond-back has buried himself in his muddy bed, whence he shall soon be dug out to sleep away the brief remnant of his days in some cool cellar until "wanted" by his natural enemy—the cook. The soft-crab, like most people who go back upon themselves and cultivate a crusty exterior, has become hardened in his ways, and disappeared from view in the heaving ocean of life. The fishing-hawk has fled from the scenes of his domestic love and care, and betaken himself to Austral waters, not because he reckons of the keen blasts of winter, but because he must follow his prey, and find his living where no ice-bound surface forbids his deadly plunge. He will not return before we have closed these pages, and, as his acquaintance is necessary to any thing like a thorough knowledge of the Chesapeake, we must stop here long enough to learn something about him. Of all predaceous birds or beasts he is the most interesting and the most respectable—the only one which enjoys and deserves the protecting friendship of man. There are few places on the Eastern Shore, within a mile or two of the water, where you cannot see from one to five of the enormous nests of the fish-hawk piled up between the forks of some great tree, the accumulation of years of occupancy and repair. One pair had their home near my house in Kent, and I was told that they always returned on St. Patrick's Day. What the connection may have been between them and the saint of Erin I know not, but during three years of residence there I regularly observed the male bird first on that day. The osprey is a handsome bird on the wing, and as harmless as he is strong. He never disturbs the farmers' poultry or pigs, and contents himself with fewer fish in a year than man destroys with a single haul of the seine. He is never disturbed by fisherman or farmer, and becomes very gentle during the breeding-season. See him hovering, like the European kestrel, over that shallow water. Suddenly his wings close, a rush and a splash,

and he shakes the spray from his feathers as he emerges, and bears off a herring or perch to his patient, incubating mate. The male before mentioned used to pass my window every afternoon about four o'clock, bearing to his nest a fish, which he had captured in the bay nearly three miles off. I once watched one with a glass struggling for nearly a mile with a very large fish, which he could raise but a few feet above the water. Several times he fell with it and went under, evidently exerting all his strength to overcome the frantic efforts of his prey to escape. The last time he was gone so long that I felt sure he had been drowned, but he came up at length without the fish, flying straight for the shore, to rest, no doubt, from his violent and disappointing contest. Woe to the over-weighted hawk should he catch the eye of his mortal enemy—the bald eagle! The pirate sweeps after him on powerful wing, mounts into the air above him, and, swooping down, compels him to drop his hard-earned prey, which is seized in its fall by the feathered ruffian before it touches the surface. The osprey is both strong and bold on occasion, but is no match for his regal assailant, and his kindly nature is averse to strife.

Before the osprey has left his summer fishing-grounds the bay begins to be dotted with small flocks of the water-fowl which have begun to leave the frozen northern seas. The black-duck and the mallard, the whiffler (golden eye), and some of the other small and inferior ducks have raised their broods among the neighboring marshes, and are merely collecting their scattered family-groups into larger and more respectable companies. The whiffler is a worthless duck for the table anywhere and at any time, but he sometimes makes good shooting over decoys painted to resemble himself, and sells well in New York, where the "game" which is exposed at some restaurants and hawked about the streets would make an old Chesapeake gunner "laugh until he cried." The mallard and black-duck are poor and fishy here, but on the flowed rice-fields of Carolina, or fattened on the oak-mast of the Southern swamps, they rival the canvas-back in juiciness and high flavor. There they are known as "big ducks," and are killed by thousands every year, but the sport is as different from the shooting on the Chesapeake as fly-fishing is from trolling in the surf.

The "southerly," or long-tailed duck, is, without any exception, the most worthless of his kind, but is often shot when his betters are scarce. These birds sit in small flocks, conspicuous for the white, which is the prevailing hue of their plumage. In the rivers they feed singly, and afford good sport to one sailing down on them and shooting as they rise. They have a singular habit of diving from the wing, striking the water like a stone. Bang! went the gun of a greenhorn once, as a southerly whistled past him, and down went the duck at the flash like a piece of lead. As usual, he put up only the tip of his bill and sneaked off under water. "Well!" cried the "sport," after looking in vain for his game, "I filled that feller so full o' shot that he sunk right to bottom!" On another occasion a flock of about twenty plunged as the

harmless report reached their ears. "There," yelled the tyro, in wild excitement, "I've killed the whole raft of 'em!"

The first duck really worth shooting which makes its appearance is the black-head, or flocking-fowl. Under this name there are three distinct species found on the bay, viz.: The two species of scaup-duck (*Fuligula marila* and *F. mariloides*), and the ring-necked duck (*F. ruftorques*.) The latter is known as the "bay black-head," and is far superior to the scaup. The canvas-back, most delicious of all *bonnes bouches*, and the scarcely inferior red-head, are becoming yearly more scarce, while the widgeon, or "bald-pate," is abundant only in certain localities. The pin-tail, or sprig-tail, is also choice eating when fat. All these ducks feed chiefly upon the wild-celery (*Valisneria spiralis*), and are found in immense numbers wherever it abounds. At the mouths of the Susquehanna and the Gunpowder, on Black River, along the Kent flats, and especially off Eastern-Neck Island, and on Dickinson's Marsh, on the Choptank, these delicious birds used to be found by tens of thousands. Now only the black-head is abundant, and next to him the red-head. The decrease is not owing chiefly, as many suppose, to the wholesale slaughter, which has now been happily checked by law and public sentiment, but to the failure of the celery-grass, which is their favorite food. If this is owing to temporary causes only, the time may yet come when the flats of the Upper Chesapeake shall again be covered with countless flocks of canvas-back.

The birds are not as wild as one might suppose, but they have been terribly harassed by sink-boats, fire-shooting, and swivels. The latter were the most destructive, but the night-shooting the most trying to the fowl. They feed principally at night, and will soon become poor and abandon their resorts, if disturbed habitually by the fire-hunters. The method is the same practised with deer, woodcock, and, indeed, all kinds of game, only in this case the annoyance affects larger numbers. The swivels, loaded with a bag of heavy shot, did murderous execution from the decks of the puny-boats, strewing the water with the dead, and crippling hundreds, which became a prey to eagles, sea-turtles, minks, and foxes. Now, happily, that business is about broken up, the point-gunners taking the execution of the law into their own hands. There are some localities where such poachers would risk the loss not of the vessel only, but of their lives. The fishermen, too, have made the fowl very shy by their habit of beating the sides of their boats to drive the fish toward their gill-nets.

Perhaps a description of the sink-boat may be novel and interesting to many who are unfamiliar with its construction. The shell, or boat proper, is just large enough to hold the gunner and his armament, the weight sinking it below the surface of the water, which is kept out by a light combing around the gunwale. Broad canvas frames, like outriggers, surround the boat, slightly submerged. Upon these are placed the decoys, made to resemble the ducks desired, and the whole apparatus floats down upon the unconscious victims, or else they alight, deceived by their

wooden "Doppelgänger." One barrel in the water and another on the wing generally make a good bag, but the ducks continue to come, and the sport lasts until the wind or tide changes. There is no danger, although the craft be so insecure, for the water is rarely more than waist-deep. There are places on the Kent shore of the bay where you may ride for miles on horseback and never approach the beach nearer than a quarter of a mile. The days of sink-boats are over, and only two modes of shooting are now regarded as legitimate—on "points" and over decoys. In either case the gunner is armed with two enormous double-guns, the single-barrel being now rarely used. These guns sometimes weigh over fifteen pounds, are of eight to ten gauge, and carry a handful of powder and shot. I know one which carries forty buck-shot, and single "Bs" in proportion. Instead of the ordinary accoutrements, the shot is carried loose in a box, with a double metal-charger; a large powder-flask and a good supply of wads are kept at hand, and the loading-rod takes the place of the ordinary ram-rod.

You must have a good dog, or you will lose half your game. The Chesapeake water-dog is a magnificent animal. It is difficult to trace his origin. He is smooth-haired, which is a great point, as the Newfoundland suffers terribly from the freezing of his shaggy coat; his color is either black, with white breast and gray nose, or tawny yellow, the latter preferred. Generally he is fierce, and the best of watch-dogs, deep-mouthed and powerful. He is very sagacious, and loves the water and the sport. I have seen one—a mere puppy—sit for hours in the summer watching the fish-hawks as they pursued their craft. Whenever the hawk would make his plunge Leo would rush through the "jumping water" and swim for the spot. He never brought out a hawk that I know of, but never seemed to be discouraged at his failures. One used to be famous for his thieving propensities. He would sneak off and seize every duck he could lay his teeth on and deposit it on his master's pile. Another would never touch a whiffler or southerly unless ordered by his master to do so, but would swim a half-mile through floating ice to secure a canvas-back or red-head.

Decoy-shooting is practised where the ducks are in the habit of feeding. A "blind" is constructed of saplings, grass, or drift-wood, close to the water, and thick enough to conceal the gunners, their dogs, and guns. Then the decoys—wooden ducks carved and painted to represent the black-heads, red-heads, and canvas-backs—are thrown out, each anchored to a piece of lead or iron. Sometimes the ducks are very cautious, but at others they will be deceived by sods thrown into the water. The best ducks decoy most easily—the canvas-back best of all, then the red-head, then the black-head. The gunner wears light-colored clothing, and a white hat. You can always tell a greenhorn by his black coat. The ducks fly singly or in flocks, and, according to their readiness to decoy, are shot on the wing or allowed to alight. Here comes a flock of red-heads, breasting the wind on powerful pinions low to the surface of the

water. Suddenly they see the wooden frauds, turn, check their flight, and come down with a swash and a splash among them. In an instant four barrels are emptied with a deafening roar. A dozen or so are kicking on their backs, four or five more are swimming off with broken wings, sitting deep in the water, and with outstretched necks. As the dogs rush in, passing the dead and giving chase to the wounded, the survivors rise on whistling wings, and more of them fall back at the flash of the reserve guns. The men reload with eager haste, but just as they feel for their caps a bunch of canvas-backs come wheeling around, so close that you can mark the flash of their bright-red eyes. Startled by the swimming dogs, they averted off toward the shore, skim right over the blind, and speed away from the scene of slaughter before the disappointed gunners have capped their pieces. Before long, however, they have wheeled back on their course, and, as they dash by uncertainly at long range, they are riddled by the heavy shot which outflie their swiftest strokes, and half of them are soon lying on the shore, while men and dogs crouch motionless and eager for another chance.

But point-shooting is the very heroism of sport. If you fear the cutting power of a nor'wester, or the icy clasp of a wet boot, or if your skill has been taxed only by the whirling partridge, or the devious flight of the snipe, you may just as well sit by the fire at home. Your light breech-loader may kill red-necks over decoys, but here you must have the heavy duck-gun, which will bring the fowl on a cross-shot at one hundred yards or more, and you must know how to stop a duck passing you before the wind at ninety-odd miles the hour. The points are generally necks of land stretching out between two feeding-grounds, or just at a bend which the ducks must pass going up or down the water. Each point makes shooting only on its own wind, and you may watch the slaughter on a neighboring stand while you fail to get a shot. You must keep close, despite the freezing blast, and your dog must lie as if cut from stone. The ducks know what is coming, and try to keep well out from the land, but the powerful wind drives them out of their course, and as they draw nearer every muscle is strained, and they begin to rise higher. But it's of no use. The steady hand on the stock, the quick eye along the barrel, the strong finger on the trigger, a flash, a dull report carried off on the hastening breeze—that shot was aimed at least six feet ahead of the heavy bird; but his head sinks, his wings and legs droop, and he goes hurtling through the air for forty yards before he strikes the water, a lifeless mass. Most of the birds are killed singly, and if they are flying well it is best to have two hands, one to shoot, and the other to load the spare guns.

We must not leave the Chesapeake without a word about the noblest bird which adorns her waters, the stately, snow-white swan. It is not generally known that there are two distinct species of this magnificent bird common on this continent, both different from the European swan which ornaments the waters of our parks. It would be hope-

less to attempt the domestication of our wild-swans, as the old ones cannot be captured alive, and would not breed in captivity, and the young are reared far to the north, within the arctic circle. The trumpeter-swan is never seen east of the Mississippi, frequenting the great rivers and inland waters of the West. The American swan, which is much smaller, is our bird, and there is no fowl more abundant on the Chesapeake. There they whiten the waters with their immense flocks, feeding in company with the Canada or common wild-goose, the snow-goose, the brant (rather rare), and countless multitudes of sea-ducks. With the first sharp frosts of November, the swans appear on the flats. Their incessant clanging and trumpeting can be heard for miles, and it takes a week or two every season for the inhabitants along the shore to become accustomed to the din so as to rest comfortably at night. They are very wary, and sit out far beyond range, but near enough to be closely observed without a glass. The young birds, or "blue-necks," can be readily distinguished from the pure white of the patriarchs of the flock, and a few cygnets can be seen clad wholly in gray. Lucky the man who secures one of these for a Thanksgiving dinner, for the canvas-back himself, *meo iudice*, is scarcely to be preferred. But woe to him who invites his friends to make merry on a bird over six years old! as well might he try his masticatory powers on the gluteal muscles of a superannuated mule. It is easy, however, to tell a young bird in white plumage by the feet and bill, and especially by the horny excrescence at the main joint of the wing. See that group who have just discovered a choice patch of water-grass, or perhaps the bushel or so of corn which has been thrown out as a bait; now they seem to be standing on their heads, their black feet paddling the air, but never all together, for at least one sentinel is always on the watch. Now they swim gracefully about, with heads erect and undulating necks, and now they rise bold upright on the water, fanning themselves with their immense wings, uttering all the while their happy but discordant notes, which mingle wildly with the loud quacking of the mallards, the metallic "hawnk" of the geese, and the screams of the bald-eagles, which are hungrily watching the scene from their perches on the weather-beaten oaks along the shore. It is a tempting sight to eagle or gunner, but both may look and take it out in covetous admiration. But the wind freshens from the northeast, the birds become uneasy and more noisy, the sunshine fades from the fast-clouding sky, and the whole mass of feathered life rocks and swells upon the heaving billows, which grow angry and stimulate the rage of the more powerful ocean. There will be a two days' rain and blow, which will keep us close within-doors, and make us hug the glowing stoves for comfort. Now is the time to furbish up the huge guns, and see that every thing is in order, for the wind will shift on a clearing quarter, and a stiff sou'wester makes shooting on Wickes's Beach. The rain scarcely holds up before the road is full of vehicles, hurrying down toward the points. The exposure is terrible, and few men can stand it for more than three or four

successive years. The same rules must be observed as in duck-shooting on points, only, if any thing, more strictly, for no bird except the wood ibis is more suspicious than the swan. Except on the hired stands, which are most jealously preserved, there will always be more gunners than swans, and hence when a "bunch" is making up, always flying in single file, there is the tallest kind of "claiming." Each man calls his bird, first, second, fourth, and so on, and, if that swan comes down the claimant will swear to him, even if his gun missed fire!

See how the immense birds come on, their long, black-tipped necks stretched out in front, and their huge wings beating the air with quick, short strokes, the heavy body moving steadily across the howling, piercing blast! They seem to move but slowly, and yet see how they have overtaken and passed that little duck, which is speeding along like a bullet before the gale! As the leader—always the oldest male—sweeps abreast, the cordon of crouching gunners all rise simultaneously and fire, and the last three birds go down! Two have been struck dead in the air; one goes into the water with a tremendous swash, while the other, all doubled up as he turns over and over in the fall, makes a deep dent on the half-frozen beach, and goes bouncing along for ten yards at least; the third slants down to the water with a broken wing, and makes rapidly off, with the dogs in mad pursuit. It is well for old Leo, powerful and determined as he is, that the shot has passed into the body of his game, and weakened him so that he can neither swim fast nor fight desperately. A brief but tremendous struggle takes place, and the brave old dog drags the dying bird to the shore, where Wave has already done her part by bringing in the dead cygnet.

The gunners will wait and watch and freeze until night sets in, but such luck is not likely to be repeated. One or two swans in a week is considered good sport by those who are on the beach with every wind. Sometimes the rifle does better execution, but it is now rarely used, the wilder sport being more exciting. In the hands of a good shot, however, Wesson's fowling-rifle, with telescope-sights, is very deadly, especially in the spring, when the birds sit closer inshore, and are fond of pluming themselves on the knolls. I knew a gentleman, residing near the mouth of the Chester, who was famous for his success. He was a dead-shot, and always wore a high "stove-pipe" hat. When the swans were seen sitting within range he would creep down under cover of the fences, and, putting his hat on the ground, would use it as a rest, lying flat on his face. One morning he thus killed five. On another occasion three fine birds were sitting on a cake of floating ice, which moved slowly with the current. Meeting an eddy it was checked, and commenced to revolve. Watching his chance, as the ice turned he fired, and killed all three of the swans with a single ball.

But it is getting too cold for comfort, and the ducks and swans are not likely to fill our bags or grace our tables, unless caught with green bait on the game-stalls of Lexington Market.

ROBERT WILSON.

MISCELLANY.

EDUCATIONAL FALLACIES.

FOR what else is the assumption underlying this anxious urging-on of organizations for teaching? What is the root-notion common to Secularists and Denominationalists, but the notion that spread of knowledge is the one thing needful for bettering behavior? Having both swallowed certain statistical fallacies, there has grown up in them the belief that State-education will check ill-doing. In newspapers, they have often met with comparisons between the numbers of criminals who can read and write and the numbers who cannot; and, finding the numbers who cannot greatly exceed the numbers who can, they accept the inference that ignorance is the cause of crime. It does not occur to them to ask whether other statistics, similarly drawn up, would not prove with like conclusiveness that crime is caused by absence of ablutions, or by lack of clean linen, or by bad ventilation, or by want of a separate bedroom. Go through any jail, and ascertain how many prisoners had been in the habit of taking a morning bath, and you would find that criminality habitually went with dirtiness of skin. Count up those who had possessed a second suit of clothes, and a comparison of the figures would show you that but a small percentage of criminals were habitually able to change their garments. Inquire whether they had lived in main streets or down courts, and you would discover that nearly all urban crime comes from holes and corners. Similarly, a fanatical advocate of total abstinence or of sanitary improvement could get equally strong statistical justifications for his belief. But, if, not accepting the random inference presented to you, that ignorance and crime are cause and effect, you consider, as above, whether crime may not with equal reason be ascribed to various other causes, you are led to see that it is really connected with an inferior mode of life, itself usually consequent on original inferiority of nature; and you are led to see that ignorance is simply one of the concomitants, no more to be held the cause of crime than various other concomitants.

But this obvious criticism, and the obvious counter-conclusion it implies, are not simply overlooked, but, when insisted on, seem powerless to affect the belief which has taken possession of men. Disappointment alone will now affect it. A wave of opinion, reaching a certain height, cannot be changed by any evidence or argument, but has to spend itself in the gradual course of things before a reaction of opinion can arise. Otherwise it would be incomprehensible that this confidence in the curative effects of teaching, which men have carelessly allowed to be generated in them by the reiterations of *doctinaire* politicians, should survive the direct disproofs yielded by daily experience. Is it not the trouble of every mother and every governess, that perpetual insisting on the right and denouncing the wrong do not suffice? Is it not the constant complaint that on many natures reasoning and explanation and the clear demonstration of consequences are scarcely at all operative; that where they are operative there is a more or less marked difference of emotional nature; and that where, having before failed, they begin to succeed, change of feeling rather than difference of apprehension is the cause? Do we not similarly hear from every house-keeper that servants usually pay but little attention to reproofs; that they go on perversely in old habits, regardless of clear evidence of their foolishness; and that their actions are to be altered not by explanations and reasonings, but by either the fear of penalties or the ex-

perience of penalties—that is, by the emotions awakened in them? When we turn from domestic life to the life of the outer world, do not like disproofs everywhere meet us? Are not fraudulent bankrupts educated people, and getters-up of bubble-companies, and makers of adulterated goods, and users of false trademarks, and retailers who have light weights, and owners of unseaworthy ships, and those who cheat insurance-companies, and those who carry on turf-chicaneries, and the great majority of gamblers? Or, to take a more extreme form of turpitude—is there not, among those who have committed murder by poison, within our memories, a considerable number of the educated—a number bearing as large a ratio to the educated classes as does the total number of murderers to the total population?

This belief in the moralizing effects of intellectual culture, flatly contradicted by facts, is absurd *a priori*. What imaginable connection is there between the learning that certain clusters of marks on paper stand for certain words and the getting a higher sense of duty? What possible effect can acquirement of facility in making written signs of sounds have in strengthening the desire to do right? How does knowledge of the multiplication-table, or quickness in adding and dividing, so increase the sympathies as to restrain the tendency to trespass against fellow-creatures? In what way can the attainment of accuracy in spelling and parsing, etc., make the sentiment of justice more powerful than it was; or why from stores of geographical information, perseveringly gained, is there likely to come increased regard for truth? The irrelation between such causes and such effects is almost as great as that between exercise of the fingers and strengthening of the legs. One who should by lessons in Latin hope to give a knowledge of geometry, or one who should expect practice in drawing to be followed by expressive rendering of a sonata, would be thought fit for an asylum; and yet he would be scarcely more irrational than are those who by discipline of the intellectual faculties expect to produce better feelings.

This faith in lesson-books and readings is one of the supererogations of the age. Even as appliances to intellectual culture, books are greatly over-estimated. Instead of second-hand knowledge being regarded as of less value than first-hand knowledge, and as a knowledge to be sought only where first-hand knowledge cannot be had, it is actually regarded as of greater value. Something gathered from printed pages is supposed to enter into a course of education; but, if gathered by observation of Life and Nature, is supposed not thus to enter. Reading is seeing by proxy—is learning indirectly through another man's faculties, instead of directly through one's own faculties; and such is the prevailing bias that the indirect learning is thought preferable to the direct learning, and usurps the name of cultivation! We smile when told that savages consider writing as a kind of magic; and we laugh at the story of the negro who hid a letter under a stone, that it might not inform against him when he devoured the fruit he was sent with. Yet the current notions about printed information betray a kindred delusion: a kind of magical efficacy is ascribed to ideas gained through artificial appliances, as compared with ideas otherwise gained. And this delusion, injurious in its effects even on intellectual culture, produces effects still more injurious on moral culture, by generating the assumption that this, too, can be got by reading and the repeating of lessons.

It will, I know, be said that, not from intellectual teaching, but from moral teaching, are improvement of conduct and diminution of crime looked for. While, unquestionably, many of those who urge on educational

schemes believe in the moralizing effects of knowledge in general, it must be admitted that some hold general knowledge to be inadequate, and contend that rules of right conduct must be taught. Already, however, reasons have been given why the expectations even of these are illusory; proceeding, as they do, on the assumption that the intellectual acceptance of moral precepts will produce conformity with them. Plenty more reasons are forthcoming. I will not dwell on the contradictions to this assumption furnished by the Chinese, to all of whom the high ethical maxims of Confucius are taught, and who yet fail to show us a conduct proportionately exemplary. Nor will I enlarge on the lesson to be derived from the United States, the school-system of which brings up the whole population under the daily influence of chapters which set forth principles of right conduct, and which nevertheless in its political life, and by many of its social occurrences, shows us that conformity to these principles is any thing but complete. It will suffice if I limit myself to evidence supplied by our own society, past and present, which negatives, very decisively, these sanguine expectations. For, what have we been doing all these many centuries by our religious agencies, but preaching right principles to old and young? What has been the aim of services in our ten thousand churches, week after week, but to enforce a code of good conduct by promised rewards and threatened penalties?—the whole population having been for many generations compelled to listen. What have Dissenting chapels, more numerous still, been used for, unless as places where pursuance of right and desistance from wrong have been unceasingly commended to all from childhood upward? And if now it is held that something more must be done—if, notwithstanding perpetual explanations and denunciations and exhortations, the misconduct is so great that society is endangered, why, after all this insistence has failed, is it expected that more insistence will succeed? See here the proposals and the implied beliefs. Teaching by clergymen not having had the desired effect, let us try teaching by school-masters. Bible-reading from a pulpit, with the accompaniment of imposing architecture, painted windows, tombs, and "dim religious light," having proved inadequate, suppose we try bible-reading in rooms with bare walls, relieved only by maps and drawings of animals. Commands and interdicts, uttered by a surpliced priest to minds prepared by chant and organ-peal, not having been obeyed, let us see whether they will be obeyed when mechanically repeated in school-boy sing-song to a threadbare usher, amid the buzz of lesson-learning and clatter of slates. No very hopeful proposals, one would say; proceeding, as they do, upon one or other of the beliefs that a moral precept will be effective in proportion as it is received without emotional accompaniment, and that its effectiveness will increase in proportion to the number of times it is repeated. Both these beliefs are directly at variance with the results of psychological analysis and of daily experience. Certainly, such influence as may be gained by addressing moral truths to the intellect, is made greater if the accompaniments arouse an appropriate emotional excitement, as a religious service does; while, conversely, there can be no more effectual way of divesting such moral truths of their impressiveness, than associating them with the prosaic and vulgarizing sounds and sights and smells coming from crowded children. And no less certain is it that precepts, often heard and little regarded, lose by repetition the small influence they had. What do public schools show us?—are the boys rendered merciful to one another by listening to religious injunctions every morning? What do universities show us?—have

perpetual chapels habitually made undergraduates behave better than the average of young men? What do cathedral-towns show us?—is there in them a moral tone above that of other towns, or must we from the common saying, "the nearer the church," etc., infer a pervading impression to the contrary? What do clergymen's sons show us?—has constant insistence on right conduct made them conspicuously superior, or do we not rather hear it whispered that something like an opposite effect seems produced? Or, to take one more case, what do religious newspapers show us?—is it that the precepts of Christianity, more familiar to their writers than to other writers, are more clearly to be traced in their articles, or has there not even been displayed a want of charity in their dealings with opponents, and is it not still displayed? Nowhere do we find that repetition of rules of right, already known but disregarded, produces regard for them; but we find that, contrariwise, it makes the regard for them less than before.

The prevailing assumption is, indeed, as much disproved by analysis as it is contradicted by familiar facts. Already we have seen that the connection is between action and feeling; and hence the corollary, that only by a frequent passing of feeling into action is the tendency to such action strengthened. Just as two ideas often repeated in a certain order become coherent in that order; and just as muscular motions, at first difficult to combine properly with one another and with guiding perceptions, become by practice facile, and at length automatic; so the recurring production of any conduct by its prompting emotion makes that conduct relatively easy. Not by precept, though heard daily; not by example, unless it is followed; but only by action, often caused by the related feeling, can a moral habit be formed. And yet this truth, which Mental Science clearly teaches, and which is in harmony with familiar sayings, is a truth wholly ignored in current educational fanaticisms.—*Herbert Spencer, in Popular Science Monthly.*

PARALLEL STORIES.

In the year 1400, Ginevra de Amiera, a Florentine beauty, married, under parental pressure, a man who had failed to win her heart, that she had given to Antonio Rondinelli. Soon afterward, the plague broke out in Florence; Ginevra fell ill, apparently succumbed to the malady, and, being pronounced dead, was the same day consigned to the family tomb. Some one, however, had blundered in the matter, for, in the middle of the night, the entombed bride woke out of her trance, and, badly as her living relatives had behaved, found her dead ones still less to her liking, and lost no time in quitting the silent company, upon whose quietude she had unwittingly intruded. Speeding through the sleep-wrapped streets as swiftly as her clinging cerements allowed, Ginevra sought the home from which she had so lately been borne. Roused from his slumbers by a knocking at the door, the disconsolate widower of a day cautiously opened an upper window, and, seeing a shrouded figure waiting below, in whose upturned face he recognized the lineaments of the dear departed, he cried, "Go in peace, blessed spirit," and shut the window precipitately. With sinking heart and slackened step, the repulsed wife made her way to her father's door, to receive the like benison from her dismayed parent. Then she crawled on to an uncle's, where the door was indeed opened, but only to be slammed in her face by the frightened man, who, in his hurry, forgot even to bless his ghostly caller. The cool night air penetrating the undress of the hapless wanderer, made her tremble and shiver, as she thought she had waked to life only to die again in

the cruel streets. "Ah!" she sighed, "Antonio would not have proved so unkind." This thought naturally suggested it was her duty to test his love and courage; it would be time enough to die if he proved like the rest. The way was long, but hope renewed her limbs, and soon Ginevra was knocking timidly at Rondinelli's door. He opened it himself, and, although startled by the ghastly vision, calmly inquired what the spirit wanted with him. Throwing her shroud away from her face, Ginevra exclaimed: "I am no spirit, Antonio; I am that Ginevra you once loved, who was buried yesterday—buried alive!" and fell senseless into the welcoming arms of her astonished, delighted lover, whose cries for help soon brought down his sympathizing family to hear the wondrous story, and bear its heroine to bed, to be tenderly tended until she had recovered from the shock, and was as beautiful as ever again. Then came the difficulty. Was Ginevra to return to the man who had buried her, and shut his doors against her? or give herself to the man who had saved her from a second death? With such powerful special pleaders as love and gratitude on his side, of course Rondinelli won the day, and a private marriage made the lovers amends for previous disappointment. They, however, had no intention of keeping in hiding, but, the very first Sunday after they became man and wife, appeared in public together at the cathedral, to the confusion and wonder of Ginevra's friends. An explanation ensued, which satisfied everybody except the lady's first husband, who insisted that nothing but her dying in genuine earnest could dissolve the original matrimonial bond. The case was referred to the bishop, who, having no precedent to curb his decision, rose superior to technicalities, and declared that the first husband had forfeited all right to Ginevra, and must pay over to Rondinelli the dowry he had received with her: a decree at which we may be sure all true lovers in fair Florence heartily rejoiced.

This Italian romance of real life has its counterpart in a French *cause célèbre*, but the Gallic version unfortunately lacks names and dates; it differs, too, considerably in matters of detail; instead of the lady being a supposed victim of the plague, which in the older story secured her hasty interment, she was supposed to have died of grief at being wedded against her inclination; instead of coming to life of her own accord, and seeking her lover as a last resource, the French heroine was taken out of her grave by her lover, who suspected she was not really dead, and, resuscitated by his exertions, fled with him to England. After living happily together there for ten years, the strangely-united couple ventured to visit Paris, where the first husband, accidentally meeting the lady, was struck by her resemblance to his dead wife, found out her abode, and finally claimed her for his own. When the case came for trial, the second husband did not dispute the fact of identity, but pleaded that his rival had renounced all claim to the lady by ordering her to be buried, without first making sure she was dead, and that she would have been dead and rotting in her grave if he had not rescued her. The court was saved the trouble of deciding the knotty point, for, seeing that it was likely to pronounce against them, the fond pair quietly slipped out of France, and found refuge in "a foreign clime, where their love continued sacred and entire till death conveyed them to those happy regions where love knows no end, and is confined within no limits." Of dead-alive ladies brought to consciousness by sacrilegious robbers, covetous of the rings upon their cold fingers, no less than seven stories, differing but slightly from each other, have been preserved; in one, the scene is laid in Halifax; in another, in Gloucestershire; in a third, in Somersetshire; in

the fourth, in Drogheda; the remaining three being appropriated by as many towns in Germany.

Ring-stories have a knack of running in one groove. Herodotus tells us how Amasis advised Polycrates, as a charm against misfortune, to throw away some gem be especially valued; how, taking the advice, Polycrates went seaward in a boat, and cast his favorite ring into the ocean; and how, a few days afterward, a fisherman caught a large fish, so extraordinarily fine that he thought it fit only for the royal table, and accordingly presented it to the fortunate monarch, who ordered it to be dressed for supper; and lo! when the fish was opened, the surprised cook's astonished eye beheld his master's cast-away ring; much to that master's delight, but his adviser's dismay; for when Amasis heard of the wonderful event, he immediately dispatched a herald to break his contract of friendship with Polycrates, feeling confident the latter would come to an ill end, "as he prospered in every thing, even finding what he had thrown away." The city of Glasgow owes the ring-holding salmon figuring in its armorial bearings to a legend concerning its patron, Saint Kentigern, thus told in the "*Acta Sanctorum*": "A queen, having formed an improper attachment to a handsome soldier, put upon his finger a precious ring which her own lord had conferred upon her. The king, made aware of the fact, but dissembling his anger, took an opportunity, in hunting, while the soldier lay asleep beside the Clyde, to snatch off the ring and throw it into the river. Then, returning home along with the soldier, he demanded of the queen the ring he had given her. She sent secretly to the soldier for the ring, which could not be restored. In great terror, she then dispatched a messenger to ask the assistance of the holy Kentigern. He, who knew of the affair before being informed of it, went to the river Clyde, and, having caught a salmon, took from the stomach the missing ring, which he sent to the queen. She joyfully went with it to the king, who, thinking he had wronged her, swore he would be revenged upon her accusers; but she, affecting a forgiving temper, besought him to pardon them, as she had done. At the same time, she confessed her error to Kentigern, and solemnly vowed to be more careful of her conduct in future. In 1559, a merchant and alderman of Newcastle, named Anderson, handling his ring as he leaned over the bridge, dropped it in the Tyne. Some time after, his servant bought a salmon in the market, in whose stomach the lost ring was found: its value enhanced by the strange recovery, the ring became an heirloom, and was in the possession of one of the alderman's descendants some forty years ago. A similar accident, ending in a similar way, is recorded to have happened to one of the dukes of Lorraine.—*Chambers's Journal.*

CURIOSITIES OF TREE-PLANTING.

A proverb of Northwest India declares that three things make a man to be truly a man—to have a son born to him, to dig a well, and to plant a tree. It is impossible for the untraveled Englishman to realize the misery of a treeless country. Europe has no natural deficiency of trees; hence, bridge-building took the place of the old Aryan tree-planting, as an act of piety to God, and of duty to the future, in the counsels of the early Christian teachers of the European nations. Both in East and West, trees were no doubt the first temples, and the planting of groves was the primitive form of church-building. Abraham, we are told, planted a grove in Beersheba, to commemorate his solemn covenant; but among his descendants it became in time the mark of a pious ruler to "cut down the groves," as the seats of pagan worship; the mark of a careless ruler to

leave them untouched; and the mark of an impious ruler to plant and dedicate new groves. It is not hard to find reasons why the grove naturally became the first temple. Men were no doubt impressed by the hoary age of trees compared with the short life of man. A tree was often the centre around which each succeeding generation deposited its traditions—a visible bond uniting the departed with the living, and the living with the unborn. The cool, grateful shade of trees was a natural type of the graciousness the worshippers sought for from the power they worshipped—especially in Eastern lands, where shadow is so precious and so exceptional. The yearly new birth and death of their foliage was a national symbol of human life. The darkness and density of the grove, we must add, hid the obscenities and cruelties which belonged to the darker developments of heathen worship.

When an Englishman who has been long absent from his fatherland, again catches his first glimpse of its road-sides and fields through the windows of a railway-carriage, perhaps nothing strikes him so forcibly as the picturesqueness and the sparseness of the trees. He has seen trees in level lands stretching for miles like a thin diaphanous wall in dull uniformity; now he sees them merely dotted here and there upon the landscape, but each tree is more or less of a picture in itself. Or he has seen in mountain-lands every spot of available earth seized upon to supply life to a cherry-tree, a walnut-tree, a pear-tree; he has seen fruit-trees everywhere lining the roads and fields, instead of hedges, and probably wondered if English lads could pass to and fro every day under luscious cherries or pears and leave them untasted; now he sees nothing but solitary trees, or scattered groups, which look as if they had planted themselves out of whim or playfulness just where they pleased, not one of which can bring any money to its proprietor except by its destruction. Give a German or Swiss *Bauer* the tenancy of an English farm, and he would at once begin to arrange himself an orchard out of the mere unused corners and slices of land he would almost certainly find in its fields and along its boundary-lines. I must leave it to adepts to determine whether he would show himself a good or bad agriculturist by its activity.

Tree-planting has, in fact, retained in Germany longer than elsewhere something of its cult character, binding together religion, nation, and family. In the Vosgesen, the old German farmers were not allowed to marry until they had done something for the future good of the tribe by planting a stated number of walnut-trees.

The asking of a distinguished guest to plant a tree, is a pleasant way of commemorating his visit. We do not know that it is much used here. In 1852 the oratorian poet, F. W. Faber, was visited at St. Mary's, Sydenham, by Prince Massimo and Cardinal Wiseman, each of whom left behind him the record of his visit in a tree of his own planting. According to the German fancy, no tree planted as a memorial will grow and flourish unless it has a motto given it at the time of its planting.

In different parts of our country we may come across trees—in Sherwood, indeed, across entire woods—planted to commemorate national events. But our English tree-plantings have long been mainly the work of individuals, and not of communities. A tree planted in Lord Rollo's garden at Duncrub, to commemorate the union of England and Scotland in 1707, a fir, eighty feet high, and eighteen feet in girth, was blown down in the gale of March, 1866. The greatest day of commemorative tree-planting ever known in England was probably the first anniversary of the Restoration, May 29, 1661. The let-

ters from different towns in the *Mercurius Publicus* and the *King's Intelligencer* of that year, contain accounts of such plantings. Many of these, however, were, like the Trees of Liberty, planted only to last as long as the festival. In one letter from Halesworth, in Suffolk, the "own correspondent" of the period writes: "The number of trees that were planted in the town was so great that it perfectly resembled an artificial forest. The whole town lay under so absolute a disguise that the inhabitants knew not their own houses."—(*Mercurius Publicus*, June 6, No. 23.) The wholesale commemorative planting in the Sherwood district marks victories gained by our famous admirals. Lord Newark planted twenty-five acres, partly forest-tree and partly fir, and called it Howe's Grove, in honor of Earl Howe's great victory. A plantation of fifteen acres, adjoining Thoresby Park, is called after Earl St. Vincent; and twelve acres on the north boundary of Budby Forest, celebrate Lord Duncan. In other parts of the Sherwood district great plantations bear the names of Nelson, St. Vincent, Howe, and Spencer—the last in honor of the nobleman who then presided at the admiralty, and to whose judicious arrangement of the fleet the English successes were in part attributed.

Individual trees planted by famous men are still to be seen by the pilgrims who visit their homes and haunts. In the last century, there was quite a fashion for planting willows. It is said that the first weeping-willow seen in England was sent to the poet Pope, as a present, from Turkey, by his friend Lady Mary Wortley Montagu, and planted by him in his garden at Twickenham. It is the famous *Salix Babylonica* of the Psalter, upon which, on the banks of Euphrates, the weeping daughters of Jerusalem hung their harps. Garrick planted two willows on his lawn beside his Shakespeare Temple; in the midst of a thunder-storm, which destroyed one of them, the pious and devoted widow of the great actor was seen running up and down excitedly, crying out, "Oh, my Garrick! Oh, my Garrick!" The willow known as Dr. Johnson's willow, at Litchfield, was blown down long ago: it was said in the *Gardener's Magazine* to have been planted by him, but it is more probable that his admiration and talk of it developed the legend of his planting it. At the time of its destruction, it was thirteen feet in girth. Pieces of household furniture and snuff-boxes were made of it; and slips from it were planted by his admirers throughout the neighboring country; an off-set of the old tree was planted on the same site. Thomas Moore tells us that, when Byron first went to Newstead Abbey from Aberdeen, at the age of ten, he planted a young oak in some part of the grounds. He had a notion, or thought he had, that, as it flourished, so should he. Six or seven years later, on revisiting the spot, he found his oak choked up with weeds, and almost dead.—*Chambers's Journal*.

THE HAUSSAS.

Haussa is a vast country of the Soudan or Western Central Africa, watered by the Niger in that part of its course where it is known as the Quorra; and the Haussa language, like French, is a cosmopolitan tongue, in which traders and diplomatists of many countries are accustomed to converse when they are on their travels. The Sultan of Haussa was once a great monarch; but Othman, the famous prophet of the Foulas or Felatahs, conquered their country, and made one of their towns, Sokoto, the capital of a military empire, which is at present beginning to decay. A province of Haussa, called Katsena, has always pre-

served its independence. The most important city of Haussa, and, indeed, of negro Africa, is Kano, inhabited by Haussas, and governed by Felatahs. It is known for its manufacture of indigo-dyed cloths, and the fields far and wide round the city are covered with cotton-plants, displaying their beautiful yellow flowers, or white-tufted seed-vessels. Immense quantities of cloth are exported from Kano to Timbuctoo, and even across the desert to Morocco and Tripoli. The imports are various, and the market is a celebrated sight. There one may see Manchester dry-goods, Sheffield cutlery, red cloth from Saxony, fancy ware from Nuremberg, French double-barreled guns, writing-paper, copper (from Tripoli), crude antimony and tin (products of the country), sword-blades from Malta, Egyptian linen striped with gold, scissars and knives of native workmanship, and English gingham umbrellas. The European traveler there meets Arab merchants, who will cash at once his bills on the consul at Tripoli, payment being made in cowries, a shell which is the money of the country. The population of Kano is about thirty thousand; but, during the fairs, a hundred thousand people are sometimes present in the town; and, in such a crowd, a Haussa recruiting-sergeant from Lagos would find many candidates for the queen's shilling. In fact, if it were desired to organize an African army, nothing would be more easy; the Haussas are numerous enough, and their neighbors of Bornou and Bagirmi could be made equally efficient.

Cotton is king in Haussa, and occupies all classes; the women spin it, and the men weave it. The cotton is spun out of a basket, or a slender spindle, and this basket always contains a small mirror, which the spinster uses at least once every five minutes for admiring herself. The weaver's loom is very simple, having a fly and treadles like ours, but no beam; the warp, fastened to a stone, is drawn along the ground as wanted; the shuttle is passed by the hand.

The Haussas are exceedingly polite. Both sexes chew snuff. The women dye their hair and eyebrows, and also their hands and feet blue, so that they look at a distance as if they were wearing blue gloves and boots. Their teeth are dyed red. When a bride is first conducted to the house of the bridegroom, she is attended by a great number of friends and slaves bearing presents of melted fat, honey, wheat, and cloth, as her dowry. The Haussas are Mohammedans in religion, but have retained many pagan customs, and are always buried in their houses.—*Full Mall Gazette*.

A VISIT TO GOUNOD.

When, during my recent sojourn in London, I asked a musical acquaintance how I could best secure an introduction to Gounod, the French composer, who seems to have permanently installed himself at his English residence on Leicester Square, he laughed heartily, and said:

"Who is bold enough to beard the operatic lion in his den just now? You must bear in mind that Gounod has been in the worst possible humor ever since that unfortunate controversy with Novello, the publisher.*

* The controversy here referred to originated in M. Novello's neglect to copyright the opera "Mireil" and other works of M. Gounod by entering them at Stationers' Hall. M. Gounod, unaware of this neglect on the part of the British publisher of his compositions, sued a manager who performed his non-copyrighted operas, and publishers who reprinted them, for damages. He lost his suits, and in his indignation bitterly denounced M. Novello in the newspapers. Novello thereupon sued Gounod for libel, and, since the above sketch was written, Gounod has been sentenced to pay a fine of one hundred pounds. He declared in open court he would go to prison rather than pay the fine.

Since that affair, he has been so fretful that not a few of his most intimate acquaintances have given up all intercourse with him."

"But what if the business I have with him should be calculated to put him in good-humor?" I asked.

"That must be singularly profitable business for him," replied my friend. "Don't forget that, if M. Gounod is one of the most popular and successful of operatic composers, he is, at the same time, probably the proudest of them all, and upon his works he sets a money value such as is never reached even by the largest *tantièmes*."

Other friends who knew Gounod talked to me in a similar strain. "The worst possible time this," they said, "for a stranger to gain access to the composer of 'Faust.'"

Still, I was not discouraged, and I resolved to try my luck without the intercession of others.

Half an hour afterward I rang the bell at No. 24 Leicester Square. It is an elegant mansion, which Gounod, who, during the war of 1870-'71, took a strange liking for London, has leased for a term of years.

A middle-aged gentleman, in a dressing-gown, opened the door. His face was not particularly intellectual. He wore spectacles, and his blond hair and side-whiskers gave him the appearance of a German.

"Is M. Gounod at home?" I asked.

"Y-e-s," he replied, hesitatingly. "What do you want of him?"

"I should like to see him," I replied, handing him my card. "Please take this to M. Gounod. I have business with him."

To my surprise, the man looked at the card and then at me, but did not move.

I could not repress a movement of impatience.

Then he laughed, and said:

"I am M. Gounod. Pray follow me."

No one could surely be more astonished than I was upon hearing this. This blond-haired man, with the heavy face, the composer of the ethereal melodies of immortal "Faust!"

I had not yet recovered from my astonishment when I was ushered into a large room, most elegantly furnished, but in as picturesque disorder as old Monkbar's study in Walter Scott's "Antiquary"—the splendidly-carpeted floor littered with books, papers, journals; on the walls, book-shelves; a splendid piano, violins, and other musical instruments; close to the window, in the left corner of the room, a curiously-constructed writing-table, entirely covered by an immense, open music-book; under the table, a small, green, tin tub filled with water—such is the appearance of the room in which Gounod writes his compositions.

My business with him was soon dispatched, and I had correctly guessed its effects upon the composer's humor. He became even gay and chatty. I had just returned from Drontheim, where I had attended the coronation of King Oscar, and M. Gounod questioned me eagerly about the coronation music at the cathedral, and its effects.

"Alfscen," he said to me, "has undoubtedly composed good things for the occasion. I knew him fifteen years ago in Paris, when he was studying at the Conservatory. He dedicated a small oratorio to me then, and wrote only the other day to me."

I replied, playfully:

"I hope, M. Gounod, that the homage of your admirers has indemnified you for your recent vexations."

"Ah, talk of admirers!" he exclaimed, almost scornfully. "Do you believe that all of them here in London have deserted me? They told me I was wrong, I was hasty, I was ill-tempered, when I knew I was right."

Do you wonder that I wax wroth at being taken advantage of by my English publishers when I have remained comparatively poor, while, as everybody knows, I have enriched so many of them? Look here," he said, growing more animated, "this is an only partially complete list of the representations of my operas in the various large cities of the world. Had I been paid my *tantièmes* honestly, I would undoubtedly be very rich, and now I am in very indifferent circumstances. My whole fortune consists of a small house in Paris, and a little farm in Auvergne. I believe I am the poorest of operatic composers in Europe. Rossini and Meyerbeer left large fortunes. Auber died very rich. Wagner has all the money he wants, while I cannot even buy this house in which I live, and which I like!"

M. Gounod had uttered this in French, and with all the rapidity of an excited Parisian.

I said that his new opera, "Francesca di Rimini," was eagerly awaited by the public, and that he could undoubtedly make very advantageous arrangements both with publishers and managers.

"Perhaps," he replied, "and perhaps not. In Paris my profits are cut down by the senseless poor-tax upon operatic performances. I count upon very little from Berlin, upon a great deal from St. Petersburg and Vienna, and upon most of all from London."

He continued speaking about his pecuniary prospects. When he paused, I asked him when his new opera would be ready.

"It is almost ready now."

So saying, he conducted me to the large, open music-book on the writing-desk. It was the manuscript score of "Francesca." The notes were written in a most beautiful hand. Turning over a few leaves, Gounod showed me that the third and last act was nearly finished. I noticed that there were hardly any corrections in the manuscript. When I mentioned this to the *maestro*, he told me that he hardly ever made any alterations in his compositions, and he said, among other things, that the waltz in "Faust" was printed from the original "copy" without a change.

He noticed my looking at the water-tub under the desk.

"That is a thing without which I could hardly work," he said. "When I have written for an hour, my head grows very hot, and, strange to say, I have to put my feet in very cold water in order to obtain relief."

I observed that that was a very dangerous remedy.

"I know it," he said, "but I cannot exist without working from twelve to fourteen hours a day; and for that I need that tub. Besides, it has not hurt me thus far very much."

I looked at his ruddy face, and it surely did not indicate very feeble health. I expressed the hope that he would be well enough for many years to find his working capacity unimpaired.

He thanked me with a smile, and I took my leave. I have never bearded a more amiable lion in his den.—*From the Milan Pungolo.*

THE HANGING-GARDENS OF BABYLON.

Our pretty hanging-baskets, with their suspension-wires completely draped in delicate-climbing ivies and standing mosses, with their masses of beautiful trailing plants, their drooping grasses, vineas, mimosas, musk-scented and covered with brilliant golden flowers, though lilliputian in size, are literally

hanging-gardens. But, even should they be made a million times larger, their plan is so utterly different, that they could never suggest the faintest notion of the hanging-gardens of Babylon, about the very name of which there is a ring of poetic grandeur and a flavor of Oriental magnificence. They were literally *paradises*; for, though our word is directly from the Greek *paradiseos*, the Greeks borrowed it from Persia, where to this day the rich satraps rejoice in their paradises, or pleasure-gardens. Xenophon mentions those of Belesis, governor of Syria; and such as he beheld them, apparently, we find them described by Chardin and other modern travelers. The hanging-gardens of Babylon were simply a very costly variety of the paradise, such as only princely wealth could afford. Their origin is attributed to Semiramis by some; others say that they were invented by a king of Syria to charm the melancholy of one of his wives, of Persian origin, who sighed to behold again the verdant mountains of her native land. Strabo and Diodorus Siculus have written about these famous hanging-gardens, Philo of Byzantium—if, indeed, he is the author of the treatise on the seven wonders of the world by some attributed to him—and many others.

They were called hanging-gardens, doubtless, because of the huge branching palms and other trees, overhanging the balustrade on the summit of the high walls that inclosed the paradise. These walls were about one hundred and thirty yards long on each of the four sides, twenty-two feet thick, and fifty cubits high, or over ninety-one feet according to the Hebrew cubit; by the Roman or by the English cubit, a little less. Around the interior on all sides, rose terrace above terrace to the number of twenty, the top one resting on the outer walls, and even with the balustrade. The terraces were upheld by immensely strong galleries, whose ceilings were formed of hewn stones sixteen feet long and four wide. Resting on these stones was a layer of reeds, mixed with a great quantity of asphalt, and on this was a double floor of fire-dried bricks laid in mortar; finally, a floor of lead plates to prevent any moisture from penetrating the foundations of the terraces, the soil of which rested directly on the leaden floor, and was of sufficient depth to hold and nourish trees fifty feet high, and thousands of rare plants culled from all parts of the known world. All these were kept in a perennially flourishing condition, we are informed, by water raised from the Euphrates through the aid of machinery concealed from view in certain rooms made in the galleries. The galleries also contained many royal apartments, variously decorated and furnished. Decently lighted they could not have been; but one can easily imagine that a walk around those upper terraces on a fine moonlight night, the senses charmed by soft music and by waves of perfume rising from the wilderness of flowers and shrubs below, must have been enchanting.

It is a pity that the plan of ancient structure, of such extent and grandeur of proportion, should not in some way be utilized by the modern world. The designs for the centennial buildings of Philadelphia, presented by the first competitors, are all characterized by imitation of great historical structures: the dome, the arch, the spire, seem to be the motives of every one. Why has not some bold architect presented the centennial committee a plan of the hanging-gardens of Babylon? To be sure, it might be questionable whether such a structure would serve the requirements of modern civilization; but then it would betray the one object dearest to the architect's soul—the study of a model undeniably antique, grandiose, and classic to the last degree.—*Marie Howland.*

EDITOR'S TABLE.

IN the last of the admirable papers on "The Study of Sociology," which Mr. Herbert Spencer has been contributing to THE POPULAR SCIENCE MONTHLY, occur somewhat extended comments on what he considers educational fallacies, a portion of which we copy in our "Miscellany" in this week's JOURNAL. Mr. Spencer assures us that the popular belief in the modernizing effects of intellectual culture is flatly contradicted by the facts. Now, no one, we suppose, believes that education, in the ordinary sense of the word, has any direct relation to morals. It is absurd beyond question to expect "discipline of the intellectual faculties" to directly "produce better feelings." Nevertheless, while knowledge of arithmetic, accuracy in spelling and parsing, or facility in logic, will not necessarily make men juster, more dutiful, or more truthful, they certainly do create and strengthen tastes and habits which refine the mind, elevate the aspirations, and bring the individual under an order of influences which, if not technically moral, have a very decided tendency to quicken the moral faculties.

That men who, by intellectual "culture," have acquired the taste to appreciate and the knowledge to comprehend such works, for instance, as Mr. Mill's or Herbert Spencer's own, will be more susceptible to moral influences, will in fact be reached by influences to which intellectual ignorance is an insuperable bar, seems to us demonstrable *a priori*, and as self-evident in one way as the statements made by Mr. Spencer are in another. Of course, we do not maintain that every man who is intellectually cultured will, *ipso facto*, be a moral man; our thesis is that, though in every case it may not apply, in the long-run those men and those communities which are best educated are the most moral and most capable of moral improvement. If this is not so, by far the larger part of the arguments in favor of general education are wholly beside the mark; and we are mistaken if it is not Mr. Spencer himself who said, in defense of taxation for educational purposes, that what society spends in schools it saves in hospitals and jails.

Instead, however, of this being "flatly contradicted by facts," we believe it to be demonstrably true that those nations in which education is most general have, on the average, a higher sense of duty, a stronger desire to do right, and an increased regard for truth; and not only so, but that their moral status bears a striking and very direct relation to their educational status. It is not easy, of course, to prove this off-hand, nor have we space to do it if it were easy; but it unquestionably conforms to our impression of foreign nations, and it is surprisingly borne out by our experience in this country. Turning to the "Compendium of the Ninth

Census," we find that, without exception, so far as we have examined them, the statistics of education bear an inverse ratio to those of "pauperism and crime," and, in addition, that those sections of the country which we have been accustomed to consider most highly cultured (intellectually) are, as far as the figures show, the ones where, in externals at least, good morals are best observed.

We cannot, of course, enter here into the metaphysical aspects of the question, but it is legitimate to point out that such a separation of the intellectual faculties from the moral faculties as the theory we have been discussing involves, can hardly be reconciled with the cardinal principles of that utilitarian school of which Mr. Spencer is the most illustrious living exponent.

It may be noted, also, how distinctly opposed Mr. Spencer's conclusions are to those advanced by Mr. Buckle, who takes the ground that, as the moral law never changes—is the same to-day as it was at the time of Christ—all advance in the morals of a people is due solely to intellectual development. It is true, this argument is not commonly accepted; it has, indeed, been probably disputed more generally than any other of Mr. Buckle's generalizations. And yet we believe it to be essentially true, the denial it meets with usually arising from a misconception of the argument. It seems to us entirely obvious that nothing has been, and nothing can be, added to the moral law, but that there is a difference of interpretation of that moral law, a larger or higher spirit with which it is appropriated, and that this is a product of intellectual growth, a direct result of education. Those who contend against Mr. Buckle's propositions, point out how an individual or a nation grows in moral spirit, and attribute this advance to an absolute development of morals. Mr. Buckle admits the fact, but simply declares that this improvement is due to a mental growth, which comes to appropriate morals in a higher intellectual spirit.

But, while we believe that, in the long-run, merely secular education has its measure of influence upon the minds of a people, yet Mr. Spencer is quite right in many of his positions. The current belief in a sort of magical influence of knowledge, the impression that a memorizing of dates and cataloguing of facts constitute education and serve to elevate character, needs not a little revising. When education is understood not to mean a mere weighting of the memory, but a discipline of the faculties whereby the mind appropriates and fuses facts, is taught to find significances, trace out actions, make just deductions, is made, in brief, a thinking power and not a tablet for inscriptions, then we shall find that many of the popular impressions of the value of education even in morals will be well justified—for good, honest thinking is of itself a virtue, and the father of many other virtues.

—Complaint is often made, with some plausibility of reason, of the slowness with which medical science advances to new discoveries. It is pointed out that this science has existed ever since many centuries before the Christian era; that Chaldean, Egyptian, and Greek, were familiar with diagnosis, and processes of cure; and that, notwithstanding the minute scientific research of the past century, in no branch more minute than in physics, the causes of, and consequently the mode of attacking, the most formidable and fatal diseases known to humanity, are still a sealed book to the most learned physicians. Who but quacks profess to be able to deal with cancer, with cholera, with yellow fever, with consumption, with dropsy, except so far as to bring temporary alleviation to the victim? Moreover, hundreds of persons—especially young people—die every year from causes which are so utterly mysterious to the doctors that they cannot even give them a name. Men and women literally fade away from earth, clearly under the dominion of some fell distemper, which baffles, however, the most careful and critical diagnosis. It is certainly true that diseases which have existed from a period beyond which the memory of man runneth not are still the terrible secrets of the human bodily structure.

But persons who complain of the apparent sloth of medical science, in their indignation that no key has yet been found to cholera, cancer, and consumption, are apt to overlook the progress which has actually been made within the period of a century. In surgery, especially, the advance has been notably rapid. Were it only for the improved methods of amputation, the substitution of lithotomy for the crushing process, for lithotomy in dealing with stone in the bladder, and the discovery of ether as a deadener of pain, the results of this period in surgical progress would be wonderful. It must not be forgotten, too, that small-pox has been conquered by Jenner with his vaccination; that electricity has been subjected to sanitary uses; that the sciences of eye and ear cure, of the cure of insanity, and even of cretinism, the worst form of idioy, have made not slow, but remarkably rapid progress.

And now those greatest of modern men of science, the Germans, are fully aroused to the necessity of going to the root of the causes of cholera. The Germans, happily for the world, are in the habit of searching, when they search at all, for the root of things. Appearances do not beguile them; scientific demonstration is the nearest point at which their deep-probing minds find rest. The cholera has been raging at Berlin; and the propinquity of this insidious plague, poisoning the air and sweeping swift and secretly through quarters and cities, has alarmed the paternal government into prompt practical steps to baffle it. They are not content, however with the ordinary precautions of boards

of health—with ensuing cleanliness, purity of air, wholesomeness of food, proper habits; while these are attended to, science is called in to reach, and, if possible, solve the dark and mighty riddle of the pestilence itself. The Federal Council, in short, has just appointed an imperial commission, composed of learned and famous physicians from Berlin, Dresden, Munich, and Baden, "to pursue an exhaustive inquiry into the history and mode of propagation of the cholera, to undertake investigations as to the germ or poison, and to examine into all the local and individual circumstances that may influence the course of the disease, and its effectual treatment." The reputation of the commissioners, the breadth of their instructions, and the generous financial allowance made wherewith to pursue their researches, give high hopes of most valuable results.

They will not set out wholly unfurnished with guiding data. Certain facts about the cholera—its disappearance at certain altitudes, its location in a certain part of the body, the fact that it is infectious in certain states of air and temperature—are already conclusively established. Moreover, they will have before them the fruits of one of the noblest martyrdoms in the cause of science and suffering humanity on record. When, only a few weeks ago, the cholera was raging in the slums of Berlin, a young physician, scarcely past his thirtieth year, made himself remarked by the boldness and persistency with which he entered the infected quarter, and the apparent recklessness with which he exposed himself to the contagion. It is worth while that his name should be recorded and well remembered: it was Otto Obermeir. He had another object besides that of relieving, and, if possible, curing, the poor creatures whom he visited; he proposed to himself to investigate, in the presence of the living pestilence itself, its causes and its development. At last, the brave young soul thought that he had discovered the clew; and, with a heroism as far above the heroism of the battle-field as it is nobler to sacrifice one's self to save men than to destroy them, he resolved to test his discovery upon himself. It was an awful experiment; Obermeir knew full well that he staked his life against the hope of conquering the cholera. Obtaining from one of his patients some of the deadly choleraic germ, he went deliberately to his room, placed a table with pencil and paper at his bedside, lay calmly down upon the bed, opened a vein in his arm, and inserted the deadly poison. He thought he had discovered how to neutralize it; if so, man was master of the pestilence forever more. But he was wrong, and the error was fatal. He lived seven hours, and then died; but, during those seven dying hours, the young hero observed, with scientific exactness, the effects and progress of the disease upon him, and one after another he noted his observations down, un-

til within the very half-hour when the spirit left the body. These notes are pronounced to have the highest value, and will serve the commissioner with new facts of the first importance; and so the dying legacy of Otto Obermeir may, after all, lead to the victory which he condemned himself to self-destruction in trying to achieve.

—The accusation of bad manners, so commonly brought in England against Americans, is met in the last number of the *Galaxy* by counter-charges quite as damaging as those under which we have suffered. That the instances cited by the *Galaxy* are true we do not doubt, although we have only the testimony of the editor to that effect, but almost every one who has met English people in society here can match the *Galaxy* accusations with others almost as bad. It is, indeed, a matter of great surprise to many Americans how it is that a people so censorious of our shortcomings, and so assured of their own superiority, should so frequently exhibit absolute boorishness. We recollect very well the surprise and disgust which the rude manners of Thackeray excited in some New-York drawing-rooms, and every American knows that English people continually do and say things that in this country would be considered unpardonable breaches of decorum. There are, we think, more independence and self-assertion in the Englishman, even of the well-bred class, than are found among Americans of the same social level, and this fact probably accounts for those manifestations which the much-censured Yankee is never guilty of; but the main difference between English and American ideas of breeding is pointed out in the *Galaxy* article with great exactness, with so much justice and clearness, indeed, that we can do no less than copy the passage here:

"There is a wide fundamental distinction between English good-breeding and American good manners, which is half indicated in the difference between the words themselves. English breeding consists in a training which results in an acquired faculty of instinctively doing or avoiding particular things. A well-bred Englishman is taught from his cradle up how to sit, walk, speak, eat, drink, enter a room, leave it; he is also taught, notwithstanding his behavior in this country, how to dress. He is taught, also, to whom to be respectful, whom to treat as an equal, how to bear himself toward inferiors. The result of this training is that one detects in a well-bred Englishman the result of a sort of military discipline, a stiff regularity which suggests the notion of dress-parades and the manual in early life. There is indeed something in the relation between English fathers and children which suggests the drill-sergeant and raw recruits. In American families, however, in which there is any training at all, the process is quite different. The attempt is made, and certainly no one will deny that in some cases it is made with success, to give the child, not a series of rigid rules for his guidance in life, but a foundation in character of urbanity and amiability which will enable him as he goes through life to make rules for himself. He is taught as much as possible that, though rules of good manners are always in existence for the convenience of mankind, the foundation of good manners

does not consist in rigid adhesion to one rule, but in an amiable endeavor to make social intercourse agreeable; that he is the best-mannered man who is most suave, most urbane, most hospitable, most benevolent, most honorable, most brave, most upright. The American, who is really well brought up, is taught from the earliest moment that the first rule of good manners is to sacrifice his individuality to the general social good, and that all rules of detail are subordinate to that. He is taught that he must not be silent in the midst of people who are talking; that he must not, on the other hand, monopolize the conversation. He is taught that he must keep his feelings to himself, and not try to force his opinions down others' throats; he must not be dogmatic, obstinate, or selfish. He must not even be too original. He must always consult the interest of the whole, and allow the 'individual' to 'wither.' We do not mean to say that there are many families in America where this code of manners is taught. But there are enough (there once were more than there are now) to make such a scheme of social behavior an American ideal. There are people who continually have it in their mind when they describe that mythical character, the American gentleman. To put the matter in other words, the English ideal of manners is a practical ideal, and consists of submission to certain rules and conventions which have been adopted in England for the convenience of Englishmen. The American ideal of manners is a vague ideal, which might in Utopia be carried into practice, which regards all rules as means to ends, and which aims at substituting for the hard, systematic code of other days, a code of brotherly love, Christianity, or what Mr. Arnold calls 'sweetness and light.' Possibly some persons may see in this difference between the English ideal and the American ideal of manners, the fundamental difference between the two peoples which makes it so difficult for them to understand each other."

—*Hearth and Home* finds fault with the Hayden exploration party for some of the names they have given mountain-ranges and peaks in Colorado. The Sierra Madre, it seems, has been named "National Range"—which, assuredly, is not in the least pertinent, as the hills thus designated are no more national than any other in the country. Then one mountain-peak has been called "White House," and another "Capitol." These designations are really absurd. But pretty much all the Colorado nomenclature is very bad. "Pike's Peak" and "Gray's Peak" and "Long's Peak" are terms that no doubt gratified the vanity of those who bestowed them, but which are detestably commonplace. These splendid mountains deserve a simple yet grand nomenclature worthy of them. Colorado, as a name for the Territory, soon now to be a State, is very happy; it is appropriate, it is essentially distinctive, and it has a good, noble, sonorous sound to the ear. Now, as the Colorado country has only become recently known, as many of the great peaks and ranges have only just acquired designating terms, it is not too late to rename all this region. There are probably appropriate Indian names that may be applied to them. Pike's Peak may be seen from the plains, a hundred and fifty miles distant. Before the time of the railroad, when emigrants were Rocky Mountain bound, they eagerly watched for the first glimpse of this towering peak; when at last seen it was

hailed with delight, and during the remaining days of their tedious journey, it was the polestar of their course. In these facts, if no Indian term can be discovered, might be found the hint for a suitable name for it. The Colorado people are full of spirit, zeal, and pride; let them act in this matter before it is too late, and give their splendid hills a nomenclature of corresponding dignity.

Art Notes.

THE wonderful scenery of the Yosemite Valley, its high mountains, steep cliffs, and high water-falls, have become familiar to most readers, from the written descriptions of travelers and from photographs. The Pacific Railroad has lessened our distance both in time and money from the wonderful scenery of this section of the Great West, but to the majority of people the features of the landscape must be forever seen only through the medium of photographs and pictures. The country is so wonderful and its peculiarities so exciting to the imagination, that every means that can be used to increase the power of the impression it makes is of great value, not only in conveying a knowledge of facts, but by adding to one of the purest pleasures of which the human mind is susceptible.

Photographs of scenery are of all degrees of excellence; but, so far as we have observed, the more distant and inaccessible places have not usually been as well depicted as the scenes nearer home. It is therefore with great satisfaction that we call attention to a very full set of pictures of California scenery, by Watkins, of San Francisco, numbering about fifty in all, which are now on exhibition at the American Institute Fair at the corner of Sixty-third Street.

Views of the great Yosemite Valley, of the giant trees of California, and to some extent of the Colorado cañons, are familiar to most people; but this collection is so complete and has such merit of execution that, till we had studied each picture carefully, we felt that we had never begun to realize the size or beauty or number of those great developments of Nature. The merit of paintings and that of photographs seem to be diametrically opposite. Masses of form and color are the great means of expressing space in painting, and each detail, because it is generally inaccurate in exact relation to other details, instead of being a means of giving size, produces confusion and littleness. Photography does not labor under this disadvantage, and, when the prints are fine and the forms clear, a great amount of particulars is wonderful in its effect on the imagination. Of course, no parallel can properly be drawn between the art of man, and Nature mirrored in photography; but we are unavoidably led to criticise the impressions made on our mind by a careful, almost painful examination we might say, of some of the mountain studies of Turner's *Liber Studiorum*, placed beside the emotions we experienced in looking over a view, by Watkins, of the Yosemite Valley seen from Inspiration Point.

In the Turner to which we refer, a study of a high hill-side in Bonneville, in Savoy, represents distant mountains gray with atmosphere, the chasms and gorges in the sides of the peaks lovingly touched in, and the nearer hills seamed and ridged, and their wind-worn forests clinging to the face of the rugged rocks, making a delightful portrait of the subjective picture imaged in the mind of the artist. In

the photograph of the Yosemite Valley from Inspiration Point, which is almost if not the best one we ever saw, the feeling that the scene produces is immense and entirely impersonal. The picture is about twenty-four by sixteen inches large, and the color of its brown tints is as rich and varied as if it were taken from a painting instead of from Nature, which, as we all know in these cases, plays strange tricks with her hues, photography often making them as false in color as they are perfect in form. But, by some way of his own, Mr. Watkins has overcome this difficulty in great measure so far as gradation of light and shade is concerned, and has given us beautiful relations of color, from the deep tints in the portions near at hand to the lightest aerial distances.

Traveling over the evergreens in the immediate foreground, which are so minutely portrayed that the peculiar species of each one can be seen as distinctly as if it were a real tree, the eye follows up the valley after the most marvelous procession of pines that can be imagined, each one perfect, and every one telling its own story of its relative distance from the eye, and it is in these trees that one great superiority of these photographs is shown. Commonly, when so far from the lens of the photographic machine, pale-gray objects blur, and are confused, but in these pictures all the detail that the eye can see is faithfully reproduced, till the increasing remoteness diminishes the forest to a succession of horizontal lines.

Leaving the valley, and traversing the mountain-sides, the impression is equally remarkable. Among the seams in the rocks several miles away, which are so clear that each curve and break in them can be distinctly explored, rise solitary masses of vegetation and trees, so perfect that one almost holds his breath with astonishment in realizing that they are not the real things; they only represent. The beautiful great domes and far-off faces of rock rise above the forest hard and firm, with every fissure and weather-stain marked by lines delicate as cobweb, but precise and clear, and most minutely defined. Such is the perfection of these pictures that, after the satisfaction of a general survey, the mind flags and the eye wearies in passing thoughtfully over their immense and exquisitely-developed particulars.

Another of these delightful photographs is of a very showy sort, a mirror view of "El Capitan," a high conical rock, with a sheer wall of thirty-six hundred feet rising above a stream in whose still water each crevasse and indentation is reflected as in a looking-glass.

Two other views of "Seal Rocks," on the Pacific coast, are very beautiful specimens of a rock-surface worn by weather and by tide, and diminishing in roughness, from where the seals bask in the sun among the broken fragments of the headland, to the smooth forehead of the promontory polished by heat and rain.

If the value of such scenes is derived from the impressions they produce on the mind, then unquestionably from the variety of feelings, the sense of size, power, and infinitely exquisite detail, which these pictures develop, their production is of very great æsthetic and poetical as well as geographical value; and to own a collection of them would be an education in the flora, geology, and physical geography of California, not to speak of the endless delight of contemplating magnificent scenes forever capable of being regarded from a new stand-point, though always the same.

The indignation very generally felt on account of the huge factory-like building in Fifth Avenue known as the Windsor Hotel, has given place, now the place is opened, to a somewhat different judgment. The bald exterior has lost much of its ugliness since the windows have been handsomely upholstered, and the blank deadness of the walls relieved by touches of light and color. It is found now, indeed, to have a very quiet, aristocratic air, the factory aspect having departed altogether. But, whatever shortcomings the exterior of the building may have, they are amply compensated for by the very handsome and even artistic interior. It is not that the drawing rooms, the dining-rooms, the parlors, the chambers of the Windsor are more sumptuous than those of other new fashionable hotels—for upholstery is one of the demands of the age which no hotel-keeper dare resist—but the decoration of this hotel is in the main artistic, while it is nearly always unique. The rooms have less of the usual loud hotel atmosphere. The carpets, instead of being gorgeous with flower-patterns, are generally of simple and truly artistic designs, and always in accurate harmony with the furniture and window-hangings. It is, as a whole, perhaps, too splendid—like all places of the kind in America; but an excess of splendor may be partly forgiven if an instructed intelligence directs it. The rooms were fitted up, we believe, by Potier and Stymus, a firm of great reputation in designs for furniture and for interior decoration.

"Among forthcoming gift-books," says the *Athenæum*, "we hear of the following: Messrs. Macmillan & Co. are preparing a volume of reproductions of twenty portraits, by Reynolds, of celebrated English beauties, including the Duchess of Devonshire and Rutland, Lady Bunbury, Mesdames Pelham and Musters, to be published with an essay on Sir Joshua as a portrait-painter, by Mr. Churton Collins, Fellow of Balliol College. Mrs. Charles Heaton has been compiling, as a companion to her 'History of the Life of Albert Dürer,' a biography of Leonardo da Vinci, which will be issued during the autumn, by the same publishers, and illustrated by copies of some of the artist's works in the Pitti Palace, British Museum, and Royal Library, Windsor. This volume will include an essay, by Mr. C. C. Black, 'On Leonardo in Science and Literature,' embodying the recent investigations of Signors Govi and Uzielli. Messrs. Bentley & Son promise 'The Works of Sir R. Strange.' Many of this artist's works are scarce. He was one of the first Englishmen to excel in line engraving, and to promote a taste for works by the old masters."

A colossal concrete statue of Nelson, we learn from the London papers, has been erected at Plas Llanfair, the marine seat of Lord Clarence Paget. The statue, which is nineteen feet high, and weighs over twelve tons, is intended to serve as a landmark to mariners navigating the Swilly Channel. A square tower, thirteen feet high, has been built on a rocky promontory commanding an extensive view up and down the Menai Straits, and the tower has been surrounded by a pedestal nine feet high, on which the statue is placed. The total height from the ground is thus forty-two feet. The statue is of limestone and Portland cement, and one of the objects Lord Clarence has had in view has been to show that our public parks can be decorated with statues little inferior to marble in appearance, and probably more durable, at a tenth of the cost of marble statues.

It is announced in London that Mr. S. Redgrave's "Dictionary of Artists of the English School" will be published during the autumn, and contain notices of the chief artists' more important works.

Music and the Drama.

MR. JEFFERSON has been at Booth's Theatre with his *Rip Van Winkle*, drawing as full houses as when the personation was new to the public. These very long runs are apt to excite wonder, but a little analysis of the facts shows that they are not surprising. When a performance becomes talked about as much as Mr. Jefferson's *Rip Van Winkle* has been, nearly everybody feels a desire to see it. Now, if we suppose that only one person in four is of age or in circumstances to attend the theatre, it would require nearly twenty years for this proportion of our forty million people to see it, each person one time only, estimating three hundred performances yearly, and two thousand people for each occasion. And two thousand people is too large an estimate for the ordinary theatre, Booth's seating only seventeen hundred. At this latter number it would require three years for each man, woman, and child, in New York and immediate vicinity, to see Mr. Jefferson once, supposing that not a stranger during all that time entered the theatre. If we fall back on our proportion of one out of every four, it would require nine months for even this number of our citizens to enjoy the personation. As there are always many more than enough strangers in town to fill the theatres, Mr. Jefferson may go on playing *Rip Van Winkle* all the rest of his life, and yet fail to accommodate all who ought or who may wish to make the acquaintance of the good-hearted but weak-headed *Rip*. So we see that long theatrical runs are not surprising, after all. As to the merits of Mr. Jefferson's personation, nothing more, perhaps, is to be said. It is very generally accepted as a masterly and perfect work of art. It loses none of its peculiar qualities on account of its numerous repetitions, but gains rather in delicacy and nicety of execution. For ourselves, we should prefer more breadth in the treatment, and think that something of *Rip's* hearty and rollicking character is sacrificed to an over-refinement of delineation. Let us warn those who go to see it that near seats enhance the pleasure of the performance very much. Mr. Jefferson ought never to play in a large theatre, as the distant spectator, in losing facial expression, and the hundred quiet turns, misses half the beauties of the rendition.

We glean from foreign journals the following items: Petrella's new opera, "Giovanna di Napoli," does not promise to have a long run in Milan. The audience was very small the second night, and still smaller the third, notwithstanding Signor Petrella was called on fourteen times during the first performance, but fourteen recalls are not much—in Italy, *bien entendu*—for so popular a composer, with whom laurel-wreaths and serenades are nearly as plentiful as blackberries. Verdi's "Artù" is to be brought out in the course of the season here. . . . A grand musical festival has been held at Spa, Germany, lasting three days, with two hundred and fifty performers. . . . The new opera "Le Roi Pa dit" has been successfully produced at Antwerp. . . . There is to be a grand musical celebration at Pæth, October 31st, the late Abbé Franz Liszt's birthday. . . . A new drama, "The Gascon," in

nine tableaux, by MM. Barrière and Davyl, the scenes of which are partly laid in Scotland, and in which Mary Queen of Scots and Lord Maxwell play prominent parts, has just been produced at the Galté, Paris. . . . The third act of M. Gounod's "Mireille" has been altered by the composer, to introduce a religious duet, expressly written for Madame Adeline Patti, who will sing in the Italian adaptation at St. Petersburg. . . . Miss Ward, an American actress, whose rehearsals in London excited some interest in literary circles, will shortly appear at the Theatre Royal, Manchester, as *Lady Macbeth*. . . . A new burlesque, by Mr. Burnand, entitled "Our Own Antony and Cleopatra," has been played at the Gaiety Theatre, London. Its reception was dubious. It was splendidly mounted, but destitute of any form of humor or drollery. . . . M. Halanzier, the director of the Grand Opera-house in Paris, after many trials of new singers, has got a prize at last in Mademoiselle Leavington, a pupil of M. Duprez, who, as *Asucena*, in Signor Verdi's "Trovatore," has had a great success. The *débütante* is of American extraction.

The Birmingham musical festival has been followed by the Three-Choir gathering at Hereford, the one hundred and fiftieth anniversary of the most ancient musical festival in England. "If," says a London journal, "in the 'Messiah' and the 'Elijah,' which now form a portion of every important gathering, there were not the same number of executants, and the same precision and perfection in the interpretation, as at Birmingham, it is a question whether the two oratorios were not listened to more reverentially, and their devotional character more keenly appreciated within the walls of Hereford Cathedral. No matter what the religious opinions of the visitor may be, and however exacting his artistic aspirations, it is utterly impossible for the coldest listener to sit in a sacred edifice, associated, as it were, both with the dead and living, and not to feel profoundly the solemn strains emanating from Handel and Mendelssohn. Conventional criticism ceases, and imperfect execution is not grating, as the sublime choral effects penetrate through nave, aisles, and choir, and when the solo singers—preachers for the time being—appeal to the hearts of their hearers. Oratorio is, indeed, exalted on such occasions, and the listener, whether moved by music, by the poetry of the situation, or by the solemnity of the scene, feels little disposed to be critical. And thus it is that, despite the vast strides made of late years in the appreciation of executive skill, the Three-Choir festivals have maintained their sway and influence, although it is certain that the exactitude and coloring which characterize performances elsewhere, of greater pretensions, cannot be attained, because the forces employed are so much more limited, and, above all, because the influence of experienced conductors cannot be secured, deans and chapters insisting upon the festival director being one of the caputular body."

The revival of a play of Beaumont and Fletcher has been attempted at the Standard Theatre, London. It is a version of "The Maid's Tragedy" of those authors, with Mr. Creswick in the character of *Melantius*, and Mrs. Viner in that of *Evadne*. "The task of revision," says the *Athenæum*, "has been fairly accomplished; a play which Geneste declared wholly incapable of adaptation to modern tastes having been fitted to the stage with no heavy or unendurable sacrifice of poetry. Mr. Creswick's *Melantius* is manly and soldierly. *Melantius* has been a favorite part

with many actors, including Wilks and Berton, the latter of whom died in consequence of his efforts, while suffering from gout, once more to present it. Waller wrote a new fifth act to this play, instigated, it is said, by the objection of Charles II. to the catastrophe (the murder of a monarch by his mistress), which might possibly suggest imitations. This is in rhymed verse, and is wholly inferior to the original."

According to the London *Telegraph*, a vigorous and earnest effort to establish English opera as a permanent national institution is now being made by Mr. Carl Rosa, who has the advantage of the experienced assistance of his wife, Madame Parepa-Rosa; and the success that has attended the inaugural week, at Manchester, of what is intended to be a long campaign in the provinces, has been such as to give ample promise that the undertaking will be a prosperous one. For a long time past, Mr. Rosa has been engaged in the formation of a company complete in every department, and has, consequently, been enabled to give the opening operas on a scale of completeness that is seldom to be met with. The orchestra and chorus have been most judiciously selected, Mr. Rosa being himself the conductor, and more than ordinary care has been brought to bear on the *mise-en-scène*. The work selected for the first performance was "Maritana."

Literary Notes.

"BY-AND-BY," by Mr. Maitland (the author of "The Pilgrim and the Shrine" and "Higher Law"), is a singular specimen of that large class of recent novels in which the form of a more or less connected story has been chosen merely as a vehicle for the expression of personal opinions and theories. "A romance of the future," is a not uncommon thing in these days; Bulwer gave us "The Coming Race," and the magazines of the last decade show many a fledgling writer's glances into those centuries of aeronautics and social reforms which, according to popular belief and the dictum of Mr. Tennyson, are to succeed our humdrum time; but, until now, no one but Mr. Maitland has come forward to perform the useful office of legislator-in-advance—to tell the generations yet unborn what they would better do, and what avoid. There is always something attractive about such cheery audacity as that with which the author of "By-and-By" pours out his opinions on the trifling subject he has taken in hand; and the spectacle of a man, who has had sufficient mental leisure at command to work out so satisfactorily to himself a number of problems in the present conditions of which his contemporaries have found enough to do, is refreshing, to say the least. But, unless these two points are in themselves enough to excite public attention, we very much fear that the readers of this book will be confined to that circle who care especially what Mr. Maitland personally thinks about the future, and that the work will not strongly appeal to those who are interested in what that future really is to be. Had the author employed some arguments to deduce from the present the state of affairs which he rather scraggly depicts, he might have attracted the many who delight in such political and social metaphysics; had he brought to bear on his "romance of the future" a rich fancy and great power of that vivid particularization which makes the charm of story-telling, he might have made a lighter but a better book. As it is, he has, not without occasional

prosiness, with singularly little use of the good material his field afforded him, expressed Mr. Maitland's opinion on a great variety of topics, past, present, and to come; and produced a volume to which any intelligent editor of a daily newspaper would have prefixed the title, the counterparts of which are so familiar to our eyes—"Mr. Maitland's Views of the Situation and Prospects." This would be fair, since no one but those who hung upon that gentleman's words would read them; while, as the title stands, many an innocent person will open "By-and-By" without the faintest suspicion that it is only a scrap-book of its author's beliefs. (G. P. Putnam's Sons, publishers.)

The annual report of the Board of Managers of the New-York Produce Exchange is not ordinarily a strictly literary work; but that which has recently appeared (for the year ending June 1, 1873) contains a feature so useful and so noteworthy that we wish to make some comment upon it here, as upon a contribution of value to the positive knowledge of an important part of our national wealth, and the methods of its distribution—as, in short, upon a really valuable treatise on a branch of political economy. Following the usual "reports of committees," "roll of members," etc., is an exhaustive treatise on "The Trade and Commerce of New York," prepared by E. H. Walker, statistician of the Exchange. The value of the information contained in this latter report cannot well be over-estimated, including, as it does, an authentic record of the receipts and exports of produce at New York for the past ten years, and the average prices of the same; a chapter on the "Physical Features of the Northwest;" information relating to the annual product of wheat and other grains in the United States, Great Britain, and Ireland, together with reports on the cost of transportation by rail, steamer, and canal. In the publication of this volume the Exchange has rendered an important service to the student of politics as well as to the merchant and farmer. The report was compiled under the direction of Mr. S. H. Grant, formerly librarian of the Mercantile Library, and now superintendent of the Produce Exchange; and the mercantile community may justly be congratulated in having secured the services of so capable and experienced an executive officer.

An unusually large number of publications have come from Messrs. Putnam within the last few weeks. Besides "By-and-By," which we have noticed, they have given us another but widely different volume of romance in Mr. Leonard Kip's "The Dead Marquise." It is a story of old Paris in its stormy days, and has some real merits, but more somewhat imitative and commonplace attractions. It seems to us a fair novel, without many strongly distinctive features. Its author is a graceful and easy writer, who violates none of the literary conventions, but who does not show in this or in his other works great independent strength or creative power. The Messrs. Putnam have done a truer service than in the publication of either of these new stories by bringing out in excellent form Mrs. Mary Cowden Clarke's "Girlhood of Shakespeare's Heroines," a book that ought not to be forgotten, and that will be a positive boon to many who have never yet learned to know it as they should. It is a work of art of no mean kind, this arguing backward from the character glimpses given by the great master; and, in the admirable stories that have been the result of the peculiar psychological experiment, many a young mind—and old one, too, for that matter—will find a good introduction to the poet's work.

A published letter from London gives the following interesting particulars in relation to two or three expected books by noted authors: "Mr. E. A. Freeman is collecting, into an octavo volume, the lectures which he delivered at the Royal Institution, under the title 'Comparative Politics.' Mr. Thomas Hughes is doing the same for lectures delivered by his much-loved friend, the late Rev. F. D. Maurice, with the singularly good title 'The Friendship of Books.' I know not how large the band of Mr. Maurice's disciples may be, nor how well they hold together since his lamented death. But his readers are always numerous. Mr. Matthew Arnold's 'Higher Schools and Universities of Germany,' in crown 8vo, was among the announcements of the past season, and is of this. So is the Princess Marie Lichtenstein's 'Holland House,' a book eagerly expected, and there are to be two editions of it, one in two volumes, 8vo, with numerous woodcuts and fine steel plates; another in 4to, evidently large paper, though not so described, half morocco, with permanent photographs, woodcuts, and India proofs of steel plates."

Messrs. D. Appleton & Co. have recently published Mr. Proctor's latest important contribution to the popular knowledge of astronomy, in his work entitled "The Moon." The book is prepared in a thoroughly serviceable way for the ordinary as well as the more scientific student, and the arrangement of the subject, the clearness of the exposition, and the judicious use of illustrations, leave little to be desired. In a single small volume there has been brought together much more than is generally expected in an elementary or popular treatise, and all classes of lovers of scientific study may find in Mr. Proctor's original work, as well as in his compilations from the results achieved by others, a really almost exhaustive history of his subject in its widest range. In so far as we are able to judge from the point of view of the general reader, this book decidedly surpasses its author's previous works of similar intent.

A work on "Physical Manipulation," by Professor Pickering, of the Boston Institute of Technology, is published by Messrs. Hurd & Houghton. It is a hand-book for the use of the student and amateur, giving a preliminary chapter on general methods of investigation, and then showing a series of experiments in sound, light, the mechanics of liquids, gases, and solids. We notice one feature of the little manual that most decidedly commends it to general use: this is, that, in the experiments recommended and described in it, only the simplest and least expensive apparatus is required. Such a work will be of the greatest possible assistance to those whose ambition in experimental science is great, but, through want of knowledge of simple appliances, is often fettered by considerations of expense.

Scientific Notes.

NOW that the construction of an aquarium at Central Park is being urged, and our readers are becoming familiar with the great interest and value of such institution, it is with pleasure that we are able to present the following brief description of the aquarium at Woodward's Gardens, San Francisco. At present this work is not only the largest, but the only public aquarium of any size this side of the Atlantic; and, from a recent conversation with Mr. Woodward, we learn that no means is to be

spared to make it equal to the greatest. At an early day we hope to present an illustrated description of this aquarium, with its surroundings; in the mean time, the following from the *Weekly Alta* will serve to convey an idea as to its size and general form: "The aquarium building is situated between the seal-pond and the entrance from the gardens to the amphitheatre. The upper story is used as a picture-gallery. The arrangement for the tanks beneath is very simple. They are sixteen in number, raised on each side so that one side of each tank is on a level with a man's shoulder. A person passing through this lower apartment sees on each side of him, as it were, sections of the sea containing marine life. The side of the tanks toward him is glass; the water is open to the sunlight above, and no light can reach the passage-way, except by first passing through the water in the tanks and the glass fronts. The tanks are made of Frear stone. The water for the marine fish is brought from the deep sea, near the Farallones, where it is found clear as crystal. It is kept constantly in motion, and aerated by the falling of a stream. This work has been under the special charge of Mr. Charles Schumann, who has labored hard for a long time to make it a success. He has met with many difficulties, far greater than would be supposed by any one not familiar with the work to be done and the delicate nature of its management."

In the interview with Mr. Woodward, to which we have referred, that gentleman informed us that, though his aquarium was yet in its infancy, and in many particulars not what he designs that it shall be, yet it is to the people the most attractive feature of his gardens, successfully rivaling in interest the Zoological and Botanical Gardens, the Art Gallery, and many other attractions. Mr. Woodward expressed himself in full sympathy with our movement for the establishment of a similar institution at Central Park, and assured us that we could not overrate its importance, or present its claims in too strong language.

Those familiar with the general principles of the electric light are aware that, in its production, an expensive and delicately-constructed apparatus is required. All these so-called electric lights depend for their production upon the passage of an electric current between two points of charcoal, the result being that the carbon is heated to a white heat, thus giving forth the light required. Now, as the heating of these carbon-points in the air is accompanied by a combustion of the charcoal, and as it is needful that the distance between them be constant, it is evident that the production of a steady and continual light requires the application of complex mechanical contrivance, as well as the frequent renewal of the points. From a recent report from the *Journal of Science and Arts*, it would appear that a decided advance has recently been made toward simplifying this method; and, if the results sustain those obtained by recent experiment, a new era is coming, in which we shall have our streets and houses lighted by electricity, and, it may be, by the same current which is to run our clocks and warm our bodies. The novelty of this new method, as well as the extent of the reform it promises, justifies an extended description condensed from the paper to which we have alluded.

In this new device it is proposed to substitute for the two charcoal-points heated in the air, a single piece of charcoal, or other bad conductor, inclosed in a transparent vessel, which shall contain an atmosphere that would not oxidize, or otherwise affect the duration of the

light-producing material. The charcoal-point thus inclosed is connected by means of a copper wire to a suitable electric machine. On setting the machine in motion, the charcoal becomes gradually and equally heated, and emits a soft, steady light, which may be regulated at pleasure, and will last as long as the machine is in motion. As the atmosphere surrounding the incandescent carbon is free from oxygen, no combustion can take place, and hence no waste occurs. The theory of this method is plain enough, and, from recent experiments at St. Petersburg, it seems entirely practicable. If it be true, as stated, that a single machine, run by a three-horse-power engine, is capable of lighting a hundred or more lanterns, it is evident that we are approaching a bright day for the much-taxed and poorly-illuminated gas-consumer. In addition to the purity and intensity of the electric light, it has in this form the advantage of being produced without any odor, or without drawing on the too-often limited supply of oxygen. Should the hopes of the inventor, Mr. A. Ladigun, be realized, we may soon be able to light a whole block by the aid of a stationary engine, stationed in the court-yard, which in the day might be made to render service in the movement of elevators, the turning of clothes-wringers, the grinding of coffee, etc. Certain it is that, as yet, we have not begun to know the amount of available power which is capable of being led along a little copper wire. The telegraph is a wonder; but there are others in store for the "coming race," before which it will appear as a commonplace fact, no longer worthy of more than a passing recognition.

Dr. Newberry's "Report on the Geology of Ohio" contains a chapter on the origin of prairies, in which views are advanced that bear directly upon the question of forest-planting, and which, if accepted, may serve to materially check the progress of this work. Our readers will, doubtless, recall a recent review of the report of the character of the meteorological observatory at Central Park, in which it was made apparent that the clearing of the Western primeval forest was followed by no evident diminution in the average yearly rainfall. Although this opinion was directly opposed to the prevailing idea as to the influence of vegetation on the yearly rainfall, yet it was supported by such evidence as to secure for it our indorsement, and now we find that Professor Newberry takes similar ground. A review of his arguments suggests the conclusion that the light rainfall upon the prairie-regions of the West is not the *result* of the absence of trees, but rather the *cause*—that had there been rain, there would have been trees. Dr. Newberry divides the region west of the Mississippi into seven districts, with the relative rainfall and timber-growth as follows: 1. Lying between the Mississippi and the Atlantic, with thirty-two to sixty inches of annual rain and generally well wooded. 2. From the Mississippi to the Rocky Mountains, having ten to thirty inches of rain. 3. The Rocky Mountains, well watered and wooded. 4. The great basin between the Rocky and Sierra Nevada Mountains, with two to sixteen inches rain, and sterile. 5. The Sierra Nevada, well watered and heavily timbered. 6. The California Valley; rainfall limited and intermittent; timber along the permanent streams. 7. The Coast Mountains, well timbered. Upon these tables the conclusion is reached that, for the vigorous growth of forest-trees, at least thirty inches of yearly rainfall is needed. The bearing of these facts is very broad, since, if fully proved, a change in the current of immigration may

follow, leading new settlers to choose sites within the favored belts, and avoiding the prairies, since there seems little chance of shading them.

A review of the advance-sheets of the *Sanitarian* for October induces us to repeat an opinion, recently advanced, that the appearance of a journal of this character cannot be regarded with too great favor. Consistent with his announcement, Dr. Bell seems to have spared no pains to secure for the journal the continued approbation of the public, by treating, in a clear and yet comprehensive manner, of subjects with which the public are directly interested, and the importance of which cannot be over-estimated. The October number opens with a paper on disinfection, read by Dr. B. A. Segur before the Medical Society of the County of Kings. From this communication, and the remarks of Drs. Bell and Squibb, which followed its reading, it is evident that the medical profession is alive to the need of a thorough and systematic use of disinfectants, which should be regularly applied to sewers, sinks, and garbage. The disinfectant most commended is carbolic acid, which, by improved methods of manufacture, is, fortunately, readily and cheaply obtained. For house disinfection, after the presence of the germs of disease has been made evident, and for their destruction in infected clothing, bedding, etc., Dr. Bell believes the evidence conclusive that dry heat in chambers properly constructed for the purpose, such as are now used in Liverpool, is the most effectual means we possess. Following this paper is one on the relative merits of wrought-iron and cast-iron as material for stoves and furnaces, in relation to the amount of carbonic oxide given forth from them; also an article on defective drainage, and a paper by Dr. Peters on the Southwestern cholera of 1873, regarding the courses of which we of the East cannot be too quickly and thoroughly informed.

Professor Nordenskiöld, of the Arctic Exploring Expedition, has forwarded to Dr. Petermann the following telegram, from which it would appear that geographically the hopes of the writer have not been fully realized, though other information of marked value was obtained. The dispatch bears the date of Tromsø, August 6th, and is as follows: "Just arrived here, all well. My resolution to undertake another ice-journey toward the north after the sledge-journey round Northeast-land, has been rendered impracticable through want of provisions, which has compelled us to return. Instead of this we have undertaken extensive deep-sea dredgings as well as botanical, magnetic, and geological researches. I bring with me, besides others from various formations, very important collections of Miocene flora, as well as of two formations which belong to an older geological period hitherto altogether unknown in the polar regions. These collections throw new light upon the prevailing flora and the climate of former periods, as well as upon the changes which these have undergone."

There is at present in course of construction at Pittsburg, Pennsylvania, a pair of pumping-engines said to be the largest in the world. The following are the weights and dimensions of certain parts: cranks, nine tons; shaft, twenty-four tons; four sections of the two valve-chambers, one hundred and twenty tons; fly-wheel, seventy tons; four plungers, nearly four hundred tons; cylinder, sixty-four inches in diameter; stroke, fourteen feet; diameter

of plungers, sixty inches, with a length of stroke of eleven feet. These engines are designed to raise water into the Highland-Avenue Reservoir, in the city of Pittsburg, which is located at a height of three hundred and fifty-six feet. It is estimated that seventy million pounds of water can be raised for every one hundred pounds of coal consumed, which would make an average cost of one cent for every three thousand and seventy gallons.

Latest advices from Berlin announce the death, from cholera, of Dr. Otto Obermeier, whose intense devotion to science and humanity cost him his life. Having entered upon a series of investigations regarding the nature, causes, and cure, of this dreaded malady, he seems to have shown an utter disregard for self in the pursuit of the knowledge he sought. As an instance of this, it is stated that on one occasion he injected some blood of a cholera-patient into his own veins. When aware that he was attacked, his devotion to the inquiry led him to make a microscopic examination of his own blood; and, as his illness was of but seven hours' duration, the nature of this last effort may be imagined. It is surely to be hoped that the results of these investigations were of a nature that the zeal and devotion of the student would seem to merit.

Professor Watson, of the Ann Arbor (Michigan) Observatory, has discovered another small planet, No. 133, of the asteroids. Professor Peters has given the name Vala to the asteroid No. 131, recently discovered by him.

ADDITIONS TO THE CENTRAL PARK MENAGERIE, FOR THE WEEK ENDING SEPTEMBER 20, 1873.

ONE PEACOCK (*Pavo cristatus*). Presented by Mr. George Bing.

ONE SMALL ALLIGATOR (*Alligator Mississippiensis*). Presented by Mrs. M. A. Hazen.

TWO GREEN HERONS (*Butorides virescens*). Presented by Master Edward W. Davis.

Sayings and Doings at Home and Abroad.

MR. GIDEON WELLES, who was one of the members of President Lincoln's first cabinet, and who therefore speaks authoritatively, has a pungent criticism in the current *Galaxy* on Mr. Adams's late eulogy of Mr. Seward. He declares that "a greater error could scarcely be committed than to represent that Mr. Lincoln 'had to deal with a superior intellectual power' when he came in contact with Mr. Seward. The reverse was the fact. In mere scholastic acquirements 'Mr. Seward, never a learned man,' may have had the advantage, though in this respect there was less difference than is generally supposed; while 'in breadth of philosophical experience and the force of moral discipline,' the almost self-taught and reflective mind of Mr. Lincoln, which surmounted difficulties and disadvantages that his secretary never knew, conspicuously excelled. In the executive council and in measures of administration the secretary had influence, not always happily exercised, but the President's was the master-mind. It is empty panegyric to speak of the Secretary of State as chief, or to say his suggestions, save in his own department, were more regarded or had greater influence than those of others. His restless activity, unceasing labors, showy manifestations, and somewhat incautious exercise of questionable authority which the President thought it impolitic to disavow, led to the impression which Mr. Adams seems to have imbibed, that the subordinate was the principal, and have induced him, to use his own words, to 'award to one honors that clearly belong to another.'"

History tells, through the *Pall Mall Gazette*, that one day, during the reign of the Chinese Emperor Woo, a gentlemanly young man, dressed in imperial yellow, and seated in a sedan chair covered with the same material, presented himself at the gate of the capital, and, in reply to the questions of the officer on guard, announced himself to be the eldest son of the late emperor, whose death had been publicly proclaimed and bewailed some years before. The news of the arrival of this illustrious stranger spread like wildfire through the city, and the mandarins hastened to seek an audience, that they might offer their allegiance to their rightful sovereign. One of their number, however, more astute than the rest, took with him a pair of handcuffs and a detachment of police, and on entering the pseudo-imperial presence walked straight up to the gentlemanly young man, and, instead of joining in the general *ekow*, fastened the manacles on his wrists and handed him over to his followers. His next proceeding was to introduce him to the torture-chamber in his Yamun, and there, we are told, the sight of the various instruments hanging from the wall produced a visible effect on the claimant, who, after some slight hesitation, acknowledged that, far from having any right to the imperial yellow, he was the son of poor parents, and that he had been induced to personate the late heir-apparent by reason of the strong likeness which he bore to him. This confession was duly reported to the Emperor Woo, who, after careful consideration, ordered the adventurous young man to be cut into ten thousand pieces.

A correspondent of the *Tribune* gives the following description of the now famous shrine of Marie Alacoque at Paray-le-Monial: "Marguerite Marie, La Bienheureuse, or what is intended to be a counterfeit resemblance of the Very Happy One, lies stretched upon an altar in the splendid chapel which her devotees have endowed. When the bones were gathered up from the grave in which they had lain for two hundred years, they were committed to the charge of a cunning artificer, who reverently connected them, as far as they would go, with gold wire. Head, feet, and hands, were formed out of wax and attached to the bones, and the body was wrapped up in wadding, with an outward covering of cloth of gold, and laid upon a magnificent marble altar inclosed in a rich case of bronze-doré, and studded with precious stones. The eyes of the wax figure, which are made of enamel, are half open. With its right hand it presses upon its breast a burning heart of pure gold, and in its left hand it holds a branch of silver lilies. The chapel itself is almost oppressive from the richness of its decoration. The walls are hidden behind the pictures and the banners which the faithful have deposited there. The vault is of azure, studded with stars of gold. The pavement of the church is of marble, while that of the sanctuary is set with stones in imitation of carpet-patterns. Before the wax figure burn constantly, day and night, sixteen golden lamps set with precious stones. One of the lamps burns for the preservation of the faith in Belgium, another for the conversion of England, a third represents the Order of the Sacred Heart, and the rest are severally devoted to similar 'intentions.'"

The Rev. Mr. Alger, one of the most eminent of Boston divines, has adopted the Quaker idea of the ministry. He has been pastor of the Music Hall Society; but, two or three Sundays ago, he informed the congregation that, in his opinion, the present form of Sunday worship had outlived its usefulness, and that in future the preacher should become a teacher. He maintained that the Sabbath is no more sacred than any other day, and he could see no impropriety in using it for the instruction and elevation of the people. He regarded the custom of building costly churches and restricting their use to Sunday services as a deplorable waste of money which, he thought, should be used for schools and other secular purposes. He also took ground against a settled ministry. He did not think it possible for one man to supply brains for a weekly discourse. He was for employing first-class ability, whether of clergymen or laymen, men or women, and thought that politicians who are also statesmen might be useful as religious instructors.

"To err is human, to forgive divine," and a gentleman who advertises in the agony column of the *London Times*, although he has broken down at last, seems to have carried forgiveness to a point rarely hitherto attained by humanity. "After you had eloped for the third time," says the advertiser to the person whom he is addressing, "I distinctly told you that I should not be at the trouble of running after you again. I have kept my word. The other advertisements are not mine, and I have requested they may be discontinued." It certainly seems hard on the advertiser that he should, as appears to be the case, be expected to spend his whole life in running after somebody who keeps on eloping without intermission, after having been distinctly warned that a persistence in the objectionable practice would at last be visited by the terrible retaliation of no pursuit. No such solemn admonition has appeared since the advertisement a few years ago, which requested some erring fugitive to return immediately to his sorrowing friends; or, in the event of his not doing so, at least to return the key of the tea-caddy, which he had thoughtlessly carried away in his pocket.

The Internationalists, lately so mysteriously terrible, seem already to have come to grief. The *Spectator* says: "At their sixth congress, only one of their original leaders was present, Jacques Guillaume, the remainder being dead, changed in their opinions, or become too prosperous to care about Internationalism. Like the St. Simonians, the Internationalists seem to have a faculty for getting on in the world; and, when they do, they acquire new ideas as to the value of property, or think, like Albert Richard, that an emperor could do more than a committee—just the conviction of the Roman plebs after their long struggle with the patricians, and of the Danish proletariat after their contest with the nobles. Karl Marx is still trying to organize a central despotism over labor, but does not succeed, and the new leaders at Geneva, so far from approving the Commune, are not willing to organize a general strike, for which it is said the working-classes on the Continent have a hankering, but for which they have not the means."

The Italian journals relate that the environs of Catanzaro, Calabria, are infested by a band of brigands, under the command of a young woman. She is only twenty years of age, and of great beauty, with remarkably black and brilliant eyes. Her name is Maria, and she is the widow of Pietro Monico, a bandit chief, who was killed in an encounter with the gendarmes. She was arrested lately, tried, and condemned to thirty years' imprisonment. While undergoing her punishment, a warder, becoming enamored of her, favored her escape, and accompanied her, but was stabbed to death by her orders immediately she had rejoined her band. Since that period, her audacity and activity have redoubled, and she has made herself the terror of the surrounding country. She burns farm-houses, carries off cattle, and levies contributions, and the slightest disobedience to her orders is punished by murder and fire.

Count Villamarina, who is now a member of the Italian Senate, and was formerly a minister and the friend of Cavour, has addressed a letter to the *Press* on the policy of the present government, which is warmly applauded by the opposition press. "The government," he says, "has decided, under the specious pretext of conciliation, to make unworthy and humiliating concessions to the Vatican, which are opposed to the interests both of the nation and of the state, by surrounding the pope with privileges and immunities which enable him to resist the civil power even more effectually than before. The allegation that Italy wishes to live in harmony with the Holy See has so often proved to be futile that it has become almost ridiculous. The Vatican answers our offers of harmony by endless discord—by papal allocutions full of gall and hatred, and by constant denunciations and curses."

According to the *Tribune*, the pursuit of literature by small boys is not viewed with any particular favor in Chicago. "A little urchin of that city, scorning the delusive jack-stone and the dizzy top, lately borrowed his father's folio Shakespeare, and sat down on the door-

step to read it, justly expecting to receive therefor the meed of universal admiration. But, alas! while thinking what a splendid boy he was, and despising the frivolous crowd of other boys who spent their precious hours with jack-stones and tops, he was suddenly interrupted. Moved by fear and horror, a watchful policeman arrested him, declaring that he must be meditating mischief, since no person in Chicago had ever before been seen sitting on a door-step and reading Shakespeare. That small boy has no longer an inclination to exhibit his uncommon intelligence."

This, by the Philadelphia *Inquirer*, is very good: "Those who should, above all other people, know better, the literary reviewers, insist on speaking of books in course of preparation as 'being on the anvil.' There may be a forcible ring in this expression, but there is certainly nothing expressive about it in a literary sense. For instance, what would those who now employ it so pertinaciously say on reading that architect Jones has a new marble-front banking-house in press, and that Brown, the railroad president, is rounding off the periods and selecting appropriate poetical quotations for a new charter, while Smith, the coach-builder, is perusing proof-sheets of a new barouche? Yet all of these ridiculous figures of speech are quite as pertinent as the description of a book being hammered into shape as is a horseshoe."

M. Thiers is still of opinion that the republic is the only possible government for France. In reply to an address presented to him at Lucerne on Sunday last, M. Thiers said that for a long time he had believed liberty to be possible with a monarchy, but he now saw that such an alliance was impossible; he had endeavored to establish, not the government of a party, but that by all, and for all; and he considered that the republic was now alone possible; he repudiated all manœuvres tending to a restoration of the monarchy with the flag of an age that had gone by; he would always serve his country with the tricolor. M. Thiers has accepted the invitation of the Mayor of Nancy to a banquet. His friends are said to be urging him to resign his place as deputy and offer himself as candidate in all the electoral circumscptions which have vacancies.

The curse of opium-eating seems to be on the increase in China. Dr. Legge, who has been traveling from Peking to Shanghai, with a view to ascertain the condition of the people of Northern China, makes the melancholy report that the growth of opium in that region is increasing at a prodigious rate, to the exclusion of the cultivation of food. In one district large tracts of land were entirely covered with poppies, and the doctor was informed that the cultivation only began last year. Some land will yield a profit by opium two, four, and even six times greater than that on wheat. The Chinese peasant's love of the debasing drug is attributed to his being "shut down to the soil of his own district, and tied out from intercourse with his fellows by unjust regulations of every sort."

The *Golos*, in an article on the Russian naval review which is to take place at Transund, observes that, during the spring and summer, the Russian fleet has been visited by English, Austrian, Danish, and Norwegian naval officers, and by the ambassadors and military *attache*s of nearly all the principal states in the world, and that Cronstadt and the new Russian iron-clads have attracted universal attention, "and even inspired anxiety in some English patriots." The chief object of the Russian fleet, it proceeds, "is to protect the Russian coasts; its next most important task is to protect the transatlantic commerce of Russia, and to add weight to her representation in political questions."

Englishmen are seriously discussing the desirableness of employing ladies as teachers in the national elementary schools. It is said that they can earn more and be more independent than governesses, teach much better, and attract a different class of girls to the schools. One of the journals remarks that "there is wisdom in the plan, and it is thoroughly successful in America; but in this country, we fear, a difficulty of caste will take some time to get over. Governesses are technically ladies, national-school teachers are technically not."

Geneva, as a city, appears to have seceded from the Catholic Church. The Grand Council has formally passed the bill for the organization of Catholic worship, and the three *cures* will henceforward be elected by the people, will take the oath to the constitution, and will be suspended for four years if they break it. As no bishop will recognize *cures* so elected, and the pope will excommunicate them, this is equivalent to a suspension of the Catholic Church in Geneva till the quarrel is healed.

The attitude of servants in this country has become wellnigh intolerable of late, but, according to Consul Bidwell, they are not yet quite so bad as in the Balearic Islands. Matters, he says, have come to such a pass in those islands that it is the servants who take their employers' characters before engaging with them, while masters and mistresses are obliged to forego all inquiries, and even to close their eyes to known defects little short of immorality and dishonesty.

The regular money-taker being unavoidably absent was temporarily replaced at the Exhibition (London) of the Bearded Lady and other natural phenomena, by a pretty, bright-eyed, ingenuous girl of about fourteen. "Haw—I suppose the—the—er—Bearded Lady is your mother," observed a languid swell, as he paid his admission money. "No, sir," said the extempore money-taker, naively, "she's my father."

Sir Henry Holland, the eminent physician, who is over eighty-five years old, has just left London on a two months' tour, his destination being Nijni-Novgorod. Sir Henry has made eight voyages to the United States and Canada, he has four times traveled over the East, has made three tours in Algeria, two in Russia, and several in Norway and Sweden; yet he says he has never lost a patient by his wanderings!

The *Saturday Review* says there are at present three recognized modes whereby young men of some merit but of small fortune may make a fair start in the world. The first is matrimony; the second is borrowing upon life-insurance; and the third is "button-holing." Of these three branches of the great art of getting on, it thinks button-holing "is at once the most scientific and the most secure."

The *Athenaeum* points out that one of Disraeli's most noted hits is to be found in the writings of John Wilkes. "In his great speech at Manchester, Mr. Disraeli, it may be remembered, compared the occupants of the Treasury Bench to a row of extinct volcanoes. The metaphor was supposed to be new, but Wilkes, in the later years of his life, described himself as 'an extinguished volcano.'"

Mr. Joseph Aroh states that he has come to this country because either he, with six hundred thousand of his fellow-laborers, must bow to tyranny, or they must emigrate. If he finds that there are freedom, plenty, and happiness, for laborers in Canada or the United States, and English farmers continue to crush them, he will stay here five years till he has brought the man out.

The King of Dahomey is reported to have made a notable change in his wearing-apparel. Seated on his throne, he received a scientific deputation, not long ago, his body profusely decorated with blue, gold, and green labels, which had been carefully peeled from the medicine-bottles brought by Europeans into his dominions.

The car which was used at the funeral of the Duke of Brunswick is celebrated in history, being the same that bore the mortal remains of Louis XVIII., of the Duke de Morny, and of Prince Jerome, ex-King of Westphalia, to the tomb.

A prominent statistician makes the singular assertion that insanity is rare under a despotic government, and observes that it will be a curious physiological inquiry to discover whether the recent Spanish revolutions have increased or diminished the tables of insanity in Spain.

Lord Cowper has no very high opinion of the House of Lords. He said, in a recent speech, that "most of them are bores, and the remainder are fools." And thou, too, Brutus!

The Record.

A WEEKLY RETROSPECT OF EVENTS.

SEPTEMBER 19.—Dr. Wolek having charged the Old Catholics of France with having provoked the late war, Père Hyacinthe and the other French delegates retire from the congress.

Mr. Felix R. Brunot has succeeded in obtaining a relinquishment from the Ute Indians of nearly 4,000,000 acres of land in Colorado.

Dispatch of an unsuccessful attempt, at Buenos Ayres, A. R., to assassinate Dr. Sarmiento, President of the Argentine Republic.

C. T. Carlton, secretary of the Union Trust Company, New York, absconds with \$425,000 of the company's funds.

A force of Carlists attack Solosa, capital of Guipuzcoa, Spain; they are defeated with great slaughter.

Violent storm at Tallahassee, Fla., causing several deaths, doing much damage to crops, and sweeping away village of St. Mark's.

Twenty cases of yellow fever a day at Shreveport, La.

SEPTEMBER 20.—Panic in Wall Street continues. Suspension of the Union Trust Company, National Trust Company, and Bank of the Commonwealth, New-York City.

Dispatch of insurrection at Khiva, Toorkistan, and in Khokan, against the Russians, during the absence of General Kaufmann, the imperialist commander-in-chief; rebellion quelled by General Vereffkin, second in command.

Intelligence that Frederick William, Elector of Hesse-Cassel, consents to annex his territory to Prussia, and renounces his right of property in the revenues of the electorate; Prussian Government grants him an annuity of 2,000,000 thalers.

Carlist forces open fire on the town of Berge, Spain.

The Internationalists at Cartagena declare they will capitulate on condition that the lives of the insurgent soldiers are spared, and some other general than Martinez Campos appointed to enter the city at the head of the Republican troops.

The Republican troops under General Pavia enter Malaga; no opposition.

Carlists raise blockade of the town of Olot, Gerona.

Dispatch of loss at sea of the ship Indus, coolie-laden; 418 coolies perished.

Death, at Paris, France, of Auguste Nélaton, an eminent French surgeon.

Explosion in the Yellow-Jacket mine, Nevada; six lives lost.

SEPTEMBER 21.—Intelligence that Mr. Stuart and a portion of the crew of the yacht Deerhound have been released by the Spanish Government.

SEPTEMBER 22.—Death of the wife of Prince Bismarck.

Yellow fever is abating in Memphis, Tenn. The Spanish steamer Murillo, which ran down the emigrant-ship Northfleet, arrives at Dover; detained there by orders from the admiralty.

The Governor of Alicante refuses the summons of Cabrera, who commands the insurgent man-of-war Numancia, to surrender the city and acknowledge the independence of Cartagena.

Suspension of Keystone Bank and Citizens' Bank, of Philadelphia.

SEPTEMBER 23.—Death, at Paris, France, of M. Jean Jacques Cocte, a celebrated French naturalist.

Bank of France agrees to loan 100,000,000 francs to the Spanish Government.

Monte Cristo and Guayabin, Santo Domingo, are in the hands of the revolutionists.

Financial panic continues, and extends to all parts of the country. Henry Clews & Co., New York, suspend; many suspensions of bankers and banks in different cities.

Explosion on the steamer Broomhaugh, 100 miles from Gibraltar; four persons killed, many scalded.

SEPTEMBER 24.—Announcement of loss of the brigantine Hound, of Halifax, Nova Sco-

tia; three deaths from starvation and exposure.

Suspension of Howes & Macy, bankers, New-York City, and of the London banking-house of Clews, Habicht & Co.

Advices of robberies and murders committed on U. S. citizens on the Mexican border.

Opening of the Episcopal Diocesan Convention, New-York City.

Intelligence that steamer Addie was sunk at sea by the Precursor, and twelve lives lost.

SEPTEMBER 25.—All the American claims disallowed by the British-American Claims Commission; sum of \$2,300,000 to be paid the British.

Suspension of the State Bank of New Brunswick, N. J.; \$250,000 misappropriated by its cashier.

The Madrid Government threatens a rupture with Great Britain, if the frigates *Vittoria* and *Almanza* are not placed in its control.

Dispatch of the death of Captain George, the head of the remnants of the Six Nations.

Financial panic continues; run on the banks of nearly all the Western and Southern cities; run on New-York banks terminated.

Inauguration of Inter-state Industrial Exposition at Chicago.

SEPTEMBER 26.—Railway collision near Carlisle, England; seven killed; collision on Midland Railway, N. J.; four killed.

General Saballs called by Don Carlos to answer for insubordination. British Admiral Velverton surrenders insurgent iron-clads to Spanish Government.

New Masonic Temple, Philadelphia, dedicated. Advices of death of the Spanish statesman Salustiano Olazaga; also, of death, at Paris, of Jean Chacornac, astronomer of reputation.

During the week there have been large shipments of gold from England to the United States.

Notices.

PROGRESS IN AMERICAN INVENTION.—We are informed that the Wheeler & Wilson Manufacturing Company has recently perfected and is now introducing a new and meritorious Sewing Machine, the New Wheeler & Wilson No. 6, which is constructed on novel principles, and seems destined to revolutionize the sewing machinery of manufactories.

This seems to be one of the reasons why this Company has received, at the World's Exposition, Vienna, 1873, both the *Grand Medal for Merit* and the *Grand Medal for Progress*, since receiving the highest premiums at former World's Expositions, and is the only sewing machine company recommended by the International Jury for the Grand Diploma of Honor.

SCIENTIFIC BOOKS.—Send 10 cents for General Catalogue of Works on Architecture, Astronomy, Chemistry, Engineering, Mechanics, Geology, Mathematics, etc. D. VAN NOSTRAND, Publisher, 23 Murray St., N. Y.

WESTERN TRAVEL. Appletons' Hand-Book of American Travel. *Western Tour.* A complete guide to all places on Western routes of travel between the Atlantic and the Pacific, including the Yosemite, and all places of resort on the Pacific slope; the Great Lakes, the Ohio and the Mississippi Rivers; full description of all Western cities and railroad routes; with maps. Cloth, flexible. Price, \$2.00. D. APPLETON & Co., Publishers, New York.

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